Education Endowment Foundation

Youth Social Action Trials: Youth United

Evaluation report and executive summary

July 2016

Independent evaluators:

Stephen Gorard, Beng Huat See, Nadia Siddiqui, Emma Smith and Patrick White

Durham University

The Education Endowment Foundation (EEF) is an independent grant-making charity dedicated to breaking the link between family income and educational achievement, ensuring that children from all backgrounds can fulfil their potential and make the most of their talents.

The EEF aims to raise the attainment of children facing disadvantage by:

- identifying promising educational innovations that address the needs of disadvantaged children in primary and secondary schools in England;
- evaluating these innovations to extend and secure the evidence on what works and can be made to work at scale; and
- encouraging schools, government, charities, and others to apply evidence and adopt innovations found to be effective.

The EEF was established in 2011 by the Sutton Trust as lead charity in partnership with Impetus Trust (now part of Impetus - Private Equity Foundation) and received a founding £125m grant from the Department for Education.

Together, the EEF and Sutton Trust are the government-designated What Works Centre for improving education outcomes for school-aged children.

This project is one of two 'youth social action' projects jointly funded by the Education Endowment Foundation, the U.K. Cabinet Office, the Pears Foundation and the Stone Family Foundation.

For more information about the EEF or this report please contact:

Danielle Mason
Head of Research and Publications

p: 020 7802 1679
e: danielle.mason@eefoundation.org.uk
w: www.educationendowmentfoundation.org.uk

About the evaluator

The project was independently evaluated by a team from Durham University with the co-operation of a team from Leicester University. Professor Stephen Gorard managed the evaluation and had a particular focus on the impact evaluation. Dr Beng Huat See managed the project, including designing the survey questionnaire and communications with the developer and the schools, and had a particular focus on the process evaluation. Dr Nadia Siddiqui, Professor Emma Smith, and Dr Patrick White assisted with all aspects of the study, including literature review and preparing the survey items.

The lead evaluator was Professor Stephen Gorard.

Contact details:

e. s.a.c.gorard@durham.ac.uk

Contents

Executive Summary

The project

The intervention evaluated here is one of two 'youth social action' projects jointly funded by the Education Endowment Foundation, the U.K. Cabinet Office, the Pears Foundation and the Stone Family Foundation. It was delivered by the Youth United Foundation (YUF) and involved uniformed youth organisations being established in schools in six areas in the north of England. YUF helped to set up new units of The Scout Association, Fire Cadets, Sea Cadets or St John Ambulance in participating schools. The number, duration, and frequency of sessions varied: most groups met weekly, sessions lasted two hours on average, and the average number of sessions in the academic year was 24. Activities were delivered by trained staff from the uniformed youth organisations and in some cases also involved adult volunteers, including teachers.

This project assessed the impact of participation on pupils' academic attainment, and on wider outcomes such as self-confidence and teamwork, using a randomized controlled trial design. The wider outcomes are of particular relevance because the participating organisations share core aims of inspiring young people to do community work and volunteer, to learn new skills, and to be active citizens. Seventy-one schools were randomly allocated to either receive the intervention or not. Of 7,781 Year 9 students, 3,377 reported in the initial survey that they would like to take part in the kinds of activities offered, and 663 took part in uniformed youth group activities during the 2014/2015 academic year. A process evaluation was also conducted to collect information about the mode of delivery and programme implementation, and feedback from teachers, pupils and parents.

Key conclusions
1. There is no evidence that the intervention had any benefit in terms of pupils' academic performance. Although the attainment data suggests a small negative impact, the quality of this data is too low to draw this conclusion with confidence. The data quality was compromised due to changes in national testing.
2. Participation in the intervention is associated with a small improvement in self-reported non-attainment outcomes including self-confidence and teamwork. It is possible that these small effects are an underestimate due to technical issues regarding the groups of children that were compared in the analysis.
3. For pupils eligible for free schools meals, there is no evidence that the intervention had a positive impact on academic attainment or self-reported character attributes. Again, the attainment data suggests a negative impact, but the quality of this data is too low to draw this conclusion with confidence.
4. Almost a quarter of schools did not deliver the intervention due to issues such as lack of teacher volunteers, and other schools did not deliver a full programme of activity. Support from senior leaders, dedicated space, school staff time, and a dedicated slot in the school day or after school were all identified as necessary conditions for successful implementation.
5. Study participants were extremely positive about the intervention and many felt it had a positive effect on the behaviour and skills of participating pupils.

How secure are the findings?

Security rating awarded as part of the EEF peer review process

The findings related to non-attainment outcomes have medium to high security. The trial was a large, well-designed, randomised controlled trial, with schools randomly allocated to either receive the intervention or not. The pupils from the intervention schools were similar to those from the comparison schools who received no intervention, and relatively few pupils were lost to the analysis due to issues such as moving school. However, the non-attainment outcomes were measured using a bespoke survey. This survey was well-designed and based on well-established test items, but as it was

developed in its current form for the purposes of this particular evaluation, it may not be able to provide a standardised measure of non-attainment outcomes.

The findings related to attainment outcomes have low to medium security. Although the trial was well-conducted as described above, it transpired that the Key Stage 3 data which was to be used as an outcome measure would not be available. The alternative outcome measures that had to be used were based on scores from internal school records and were very weakly related to previous standardised test scores. Different schools also used different tests and marking schemes to derive the scores. This makes it harder to estimate reliably the size of the intervention's attainment impact. A more reliable estimate of the impact on attainment will be available after these pupils reach the end of Key Stage 4 and additional national test data is available.

What are the findings?

In general, the analysis to assess the impact of the intervention reveals small 'effect' sizes. In the case of non-attainment outcomes these are small and positive. This is the case for almost all of the non-attainment outcomes measures, as well as the two identified as primary outcomes (teamwork and self-confidence). In the case of attainment outcomes they are small and negative. However, for these attainment outcomes, the reliability of the finding is undermined somewhat by the quality of the data. For reasons beyond the control of the evaluator, the KS3 attainment data collected at the end of the trial may not have been consistent across schools. Further evaluation would be required to understand whether the intervention did indeed have a negative impact on attainment. Future research could also assess the impact of full exposure to the programme over two to three years, to give adequate time for the uniformed organisations to establish themselves.

The process evaluation revealed that pupils, teachers, and parents all had very positive views about the intervention, and in general believed that it had a positive impact on the pupils involved. It also highlighted a number of factors that had prevented the intervention from being delivered as planned in some schools, including a lack of dedicated space and time, a lack of adult volunteers (including teachers) to support the uniformed youth group delivery staff, and sometimes a lack of support from school senior leaders. Schools should consider these factors when deciding whether to implement a similar intervention.

How much does it cost?

The costs vary depending on the number of outdoor activities and the size of the groups. Assuming 20 pupils per school, the cost is estimated at £18 per pupil per year for St John Ambulance, £26 for the Sea Cadets, £245 for The Scout Association, and £420 for the Fire Cadets—an average of about £180.

Table 1: Summary table

Outcome	Effect size	Estimated months' progress	Security rating	Cost rating
KS2–KS3 progress in English	-0.09	-1	🔒🔒🔓🔓🔓	**££**
KS2–KS3 progress in Maths	-0.09	-1	🔒🔒🔓🔓🔓	**££**
Gain in self-confidence	+0.10	N/A	🔒🔒🔒🔒🔓	**££**
Gain in teamwork	+0.04	N/A	🔒🔒🔒🔒🔓	**££**

Introduction

Intervention

The 'treatment' in this trial is not a single intervention as such, but a programme of activities provided by four uniformed youth organisations supported by the Youth United Foundation (YUF)—a charity supporting a network of voluntary organisations which offer established long term uniformed youth programmes. YUF members include Army Cadet Force, Fire Cadets, Girlguiding, JLGB, Royal Air Force Air Cadets, Sea Cadets, St John Ambulance, The Boys' Brigade, The Girls' Brigade England & Wales, The Scout Association, and Volunteer Police Cadets. The YUF acted as a fund manager and broker arranging for some of its member organisations to set up units in schools in six areas across England (Middlesbrough, Lancashire, Tees Valley, Merseyside/Liverpool, Redcar and Cleveland, and Manchester). These uniformed organisations were the St John Ambulance, The Scout Association, Sea Cadets and Fire Cadets. Although schools were offered a choice of uniformed groups, some schools were not offered the full choice because not all four YUF uniformed organisations were available in all of the six areas. The role of the YUF was largely in the recruitment of schools and managing grant agreements. It first wrote to schools in the six regions to offer the uniformed group programme. Interested schools responded with their choice, and the YUF then put them in touch with the uniformed organisation in the region. The schools then ran their recruitment drive to attract pupils. Pupils were therefore not given a choice of uniformed group. Individual uniformed groups visited schools to recruit pupils. More details are discussed in the section on Participant Selection.

Each uniformed group had a specific project manager who oversaw the overall delivery of the new groups. At the local level, 'development workers' appointed by the relevant uniformed group managed and organised the activities within schools in their respective areas. The sessions were delivered by trained staff from the uniformed youth organisations and in some cases also involved adult volunteers, including teachers. Traditionally YUF organisations have opened units in community settings that meet predominantly on weekday evenings. This project involved new units based within schools that ran during the day or immediately after school.

All of the uniformed groups followed a regular structured programme of activities, working towards a kind of certification. For example, the Fire Cadets worked towards the level 2 BTEC Award in the Fire and Rescue Service in the Community, the Sea Cadets followed a curriculum working towards the BCU (British Canoeing Union) and the RYA (Royal Yachting Association) Stage 1 qualification, and the St John Ambulance followed the First Aider programme to qualify for the Trainee Cadet First Aider certificate. The Scout activities were geared towards the collection of Explorer Scouts Badges and awards, such as Hill Walking, Performing Arts, Aviation or Public Relations. Some of the activities were aligned with the Duke of Edinburgh (DofE) award syllabus (Appendix C4). Each of the four organisations had their own syllabus or schemes of work (see Appendices C1, C2 and C3). All uniformed groups included a residential camp as part of their programme of activities.

Although youth social action is not the exclusive focus of the YUF organisations, they all encouraged and delivered youth social action activities as part of their programmes.

The uniformed group activities were delivered weekly (except for one Scout unit which ran once a month during the DofE scheme) either within curriculum time or after school. The Scout Association, St John Ambulance, and the Fire Cadets held most of their activities within the school grounds, with occasional offsite activities, with the exception of one Fire Cadets school where there was no appropriate on-school facility. The Sea Cadets activities were organised such that half of the activities were held in school and half at local boating sites. All of the uniformed group sessions had an element of theory combined with practical exercises in their weekly lessons. These activities were very much in line with the aims of the uniformed organisations. Depending on the uniformed group, these activities

could be training in fire safety and fire drills, first aid, water sports such as sailing, canoeing or kayaking, or rope skills.

The number of sessions planned differed across uniformed groups:

- St John Ambulance: 30 weeks, including 12 weeks of first-aid training.
- Sea Cadets: 33 weeks of activities.
- Fire Cadets: 38 weeks of activities.
- Scouts: 30 weeks of activities.

Background evidence

Policy and practice context

A very public debate in the 1990s portrayed young people in the U.K. as disproportionately alienated, disaffected, and apathetic (Fogelman 1995, Haste 1996). This led to the establishment of the Youth Parliament campaigns by the British Youth Council and the Ministry of Sound, as well as activities by Community Service Volunteers and the Carnegie Young People Initiative. Citizenship lessons were also introduced in schools in response to these concerns, and now form a part of the standard curriculum in most schools in England.

In recent years such concerns have again been brought to the forefront of parliamentary discussions. The current concern is that young people in the U.K. are not sufficiently engaged in civic activities such as volunteering and social action, although it is not clear what an appropriate level would be. Opportunities for such activities are rarely available in schools (Birdwell, 2013). The Children and Young Person boosts to the Home Office Citizenship Survey showed that about half (49%) of young people aged 11 to 15 were engaged in some civic activities (Birdwell, 2013). Some studies also suggest that young people were put off volunteering and social action by the negative perception associated with such activities and also by the lack of opportunities (Ockenden and Stuart 2014). In Canada, where participation in youth social action activities is compulsory in some provinces, the level of participation is higher (58%). Another reason for the low level of participation was the perception by some young people that social action activities were not sufficiently inclusive or open to people from different backgrounds (Bradbury and Kay, 2005). Birdwell *et al*. (2015a) reported that pupils from fee-paying schools were more likely than those in state secondary schools to have the opportunity to take part in non-formal learning such as uniformed group activities.

In 2012, David Cameron, the UK Prime Minister, asked Dame Julia Cleverdon and Amanda Jordan OBE to review how the Government, business, voluntary, public and education sectors could work together to support young people to engage in social action between the ages of 10 and 20. This resulted in the launch in 2013 of Step Up To Serve and the #iwill campaign - a cross-party, cross-sector and collaborative campaign to make youth social action a part of life for 10 to 20 year olds in the UK. As a consequence of this, the Cabinet Office provided a grant of £5million to 28 organisations working with young people across England to deliver a range of youth social action projects in diverse settings (Kirkman et al. 2015).

The new project being evaluated here was co-funded by the Education Endowment Foundation and the Cabinet Office. The aim of this project was to provide opportunities to 13- and 14-year-olds in state secondary schools in England to participate in youth social action through uniformed group activities.

Existing evidence

There is a growing number of youth social action programmes in the U.K. today. Many studies have been conducted suggesting positive effects of such programmes on a range of young people's outcomes, such as employability, self-esteem, confidence, and other useful skills. However, few

interventions have been evaluated, and where they have, the evaluations were often not rigorous enough to assess the impact convincingly.

For example, almost all of the studies in the review conducted by the Institute for Volunteering Research (Ockenden and Stuart, 2014) looking at the impact of volunteering, youth leadership, and youth social action, were based on surveys of young people who volunteered to take part in these activities and made no comparisons with those who did not. A number of the studies were cited in the review as providing evidence of "impact" even though there were no comparison groups or counterfactuals and no random allocation of participants in order to control for exogenous factors. Two studies—one looking at the impact of Cooperative Street-Games Volunteers (Cooperative Street-Games Volunteers, 2014) and one on the impact of Youth Action Network and Centre for Social Action (Boeck *et al*. 2009)—also did not have comparison groups, but reported that youth volunteering and social action helped develop 'social connectedness' and foster positive behaviours such as empathy, cooperation, tolerance, and better understanding of other people. These are strong but unjustified causal claims. The findings were based on a survey of the volunteers and case studies of these volunteers.

Even where experimental studies were conducted, the evidence was unclear because of high attrition and mixed results. This made it difficult to judge the evidence. One example is a large-scale randomised controlled study conducted by seven research teams across the U.S. (Social and Character Development Research Consortium, 2010). The study tracked 6,600 pupils in the third grade (aged eight to nine) over two years. Attrition was high—31% of the pupils were lost over the two years. The study evaluated the impact of school-based Social and Character Development (SACD) programmes on 20 school and pupil outcomes related to social and character development. These outcomes included self-efficacy, problem behaviour, altruistic behaviour, engagement in learning and academic competence, and perceptions of school climate. Data was collected from a combination of surveys from pupils, teachers, and primary care givers. The results were mixed: some programmes reported beneficial results and some were shown to be detrimental. These apparent effects were seen in one year and not replicated in others. The year-by-year analysis showed no evidence of impact of the seven SACD programmes (both individually and combined) on pupil's social and character development. Growth curve analysis used to estimate impact over time also reported no 'significant' effects of the combined programmes on pupil outcomes. Six of the individual results were deemed 'significant', of which two were positive and four were detrimental. There are several limitations to this study: there was a large number of missing cases; close to 40% of pupil data was not collected, either because the caregiver did not give consent for participation or because pupils were absent; in addition, these pupils might have been systematically different to those for whom data was collected.

A large-scale experimental study by the Cabinet Office in the U.K. evaluated the impact of Youth Social Action (YSA) on young people aged 10 to 20 in 73 schools (Kirkman *et al*. 2016). The evaluation consisted of three RCTs and one matched pair trial of YSA interventions provided by four providers. All of the programmes included of an element of citizenship activities. Using validated questionnaire items as outcomes, the RCTs suggested positive effects of youth participation on young people's work and life skills, such as empathy, problem-solving, cooperation, grit and resilience, sense of community, and educational attitudes. In addition to the survey, the study also measured observable behaviours: one involved an interview task where pupils' performance was assessed by experienced hirers, and the other was a task where pupils were given four 50-pence pieces and asked to decide whether they would keep the money or how much they might donate to charity. The study found that compared to their non-participating counterparts, young people who participated in YSA expressed greater interest in volunteering activities, but were less willing to donate money to charity. Pupils who participated in YSA were more likely to be judged as employable compared to control pupils. Effects on attainment outcomes were not available at the time of writing. Although promising, it was hard to judge how reliable the evidence was because there was no clear reporting on attrition,

school selection criteria, unit of randomisation, randomisation process, or selection of comparator group.

Research on the impact of uniformed group participation has also suggested positive benefits for young people. An evaluation of Youth United Foundation projects reported positive effects of participation in uniformed group activities on communication, empathy, grit and resilience (Family, Kids and Youth, 2015). These findings were based on interview data and case study reports. Questionnaire surveys collected responses from young people aged 11 to 18 about their character outcomes. A limitation of this study was that treatment and control pupils were not randomly allocated and there was a high attrition—40% for the treatment group and 67% for control pupils between pre-intervention and post-intervention surveys.

Evaluation of the impact of Girlguiding (Girlguiding, 2012–2013) and the Duke of Edinburgh award suggested that participation increased young people's resilience and promoted responsible behaviour (Duke of Edinburgh, 2010). Almost all of the girls in Girlguiding said that participation in the uniformed activity had increased their confidence and leadership skills. Again, these impact evaluations were based on young people's self-report. Young people's attitudes and changes in behaviour were compared over time, but no comparisons were made with similar children not involved in these activities.

One study looked specifically at the impact of participation in the fire and rescue services on young people identified as having a range of anti-social and behavioural problems (Ward *et al*., 2009). The study concluded that the structured, disciplined environment and close group work often associated with uniformed group activities did have benefits. Although not all completed the course, there were reported positive outcomes in terms of behaviour and attitudes from school, home, and peers. The young people reported a positive self-concept as a result of participation and several went on to become Fire Cadets. There were also reportedly societal impacts in terms of fewer hoax calls or deliberate fires started by young people. A decline in the number of offences committed by young people in the community was noted, and the number of permanent exclusions from school also dropped.

Surveys of the Combined Cadet Force (CCF) in two Welsh state schools suggested perceived improvements in attendance, behaviour and attitudes, and social relations (Glover and Sparks, 2009). Again, this study did not compare similar pupils who were not in the CCF so it is difficult to say if the pupils would have made similar improvements had they not been in the CCF. Teachers reported that pupils were better organised, and had better communication and thinking skills. Since teachers were not blind to the intervention, they may have had a biased view.

An evaluation of cadet forces across the U.K. involving 5,100 cadets from the Combined Cadet Force (CCF), Sea Cadet Corps or Royal Marine Cadets, Army Cadet Force (ACF), and Air Training Corps (ATC) reported positive effects across a range of outcomes, such as leadership skills, teamwork, self-esteem, confidence, and positive attitude (Moon *et al*., 2010). A similar evaluation was carried out in 2014 looking into the impact of volunteering in uniformed youth organisations such as The Boys' Brigade, Catholic Guides, The Girls' Brigade, and the Guide and Scout Associations (Volunteer Now, 2014). Some of the positive benefits reported included learning new skills, gaining qualifications, leadership skills, teamwork, and better communication skills. The findings of these studies were based largely on anecdotal reports by participants, volunteers, parents, and teachers. Again, no comparisons were made with those who were not involved in the uniformed groups so we cannot be sure if they would have made similar improvements had they not been in one of these groups. It is possible that pupils who participated in these activities were already likely to have high self-esteem and be more academically able and confident, alternatively, the changes observed could have occurred anyway. Without proper randomisations it is hard to say if this was the case.

Much of the evidence so far is based on participants' self-reports, or on survey and interview data, and uses no independent or validated measures. Although some of these studies claimed positive effects on a wide range of outcomes, the research designs used were often poorly suited to isolating the impact of an intervention from the many other factors that can contribute to changes in participants' self-evaluation and to changes in more objective outcomes. It is often the case that when participants in a programme are asked for their views of the programme they tend to give desirable answers.

There is currently a lack of robust evaluation of the impact of organised uniformed youth groups. Also, none of the studies so far has assessed the impact of youth participation in social action activities on academic outcomes. This new evaluation is the first large-scale study conducted in the U.K. to evaluate the impact of participation in uniformed group activities on the academic attainment of young people and the development of positive wider outcomes using a randomised controlled design.

Evaluation objectives

The main research questions are:

1. What is the impact of access to participation in school-based uniformed youth group activities for one academic year on pupils' attainment in maths and English measured at KS3?
2. What is the impact of access to participation in school-based uniformed youth group activities for one academic year on pupils' wider outcomes with a special focus on self-confidence and teamwork?
3. What is the impact of access to participation in school-based uniformed youth group activities on academic attainment in terms of performance in maths and English at KS3, and wider outcomes, for disadvantaged pupils, defined as those eligible for Free School Meals ('FSM pupils')?

Project team

The project was managed by the Youth United Foundation led by Gavin Delf, while individual uniformed groups with their regional leads managed and organised the activities within schools in their respective regions. The YUF distributed the funding to its members to deliver the project and supported them in the recruitment of schools, distributed and managed grants to the four member organisations delivering the programme, oversaw the ongoing communication with treatment schools, and managed control schools. The evaluation was led by Durham University with the co-operation of a team from Leicester University. Professor Stephen Gorard managed the evaluation and had a particular focus on the impact evaluation. Dr Beng Huat See managed the project, including designing the survey questionnaire and communications with the developer and the schools, and had a particular focus on the process evaluation. Dr Nadia Siddiqui, Professor Emma Smith, and Dr Patrick White assisted with all aspects of the study, including literature review and preparing the survey items.

Ethical review

Ethical approval was sought from, and granted by, the Durham University Ethics Committee. The project was conducted in accordance with the School of Education Code of Practice on Research Ethics and in line with the British Educational Research Association's 'Revised Ethical Guidelines for Educational Research' (2004). These guidelines assured anonymity and confidentiality. No individual pupil or school would be identified or identifiable. Schools and individual organisations also obtained parental consent for activities (Appendices F and G).

Trial registration

We do not think post hoc registration of the trial is necessary because the protocol has already been published, the report will be published in its entirety on the EEF website, and the findings will be in the public domain. The reasons for registering a trial are to inform the field that a trial has been conducted, and to ensure that all results (both positive and negative) are published and that the trial protocol stating the main outcome measures is written before the trial begins to avoid dredging of results or changing the main outcomes. Since this trial already conforms to all these requirements, there is no need to register the trial.

Methods

Trial design

This was a simple two-group randomised controlled trial, with randomisation at the school level. School-level randomisation was deemed to be the most appropriate approach by the developers and funders because it would allow for testing the spill-over effects of the uniformed group on the whole cohort within the school, in addition to the impact of actually participating. The plan was to recruit 80 schools in the north of England with 40 schools receiving the intervention and the other 40 providing a control. The intervention started in September 2014 and ended in July 2015. To help reduce post-allocation demoralisation, and thus dropout, the control schools were offered an incentive payment of £1,500 on completion of the post-test. This was to encourage them to remain in the trial in terms of providing the necessary data.

The plan was for the YUF to offer an average of 20 places to Year 9 pupils in each school. If there were more than 20 willing to take part in these schools, the 20 places would be offered to 20 randomly selected pupils. Those not selected would form a secondary in-school comparison group. Participation was intended to be voluntary. In practice, some schools took a different approach (see the Analysis section below).

Any changes to the protocol are discussed in the relevant sections below.

Outcome measures

The aim of this study was to evaluate the impact of participation in uniformed group activities on pupil attainment and non-attainment outcomes.

The two primary attainment outcomes were progress in English and progress in maths (gains between KS2 and KS3).

The two primary non-attainment outcomes were progress in self-confidence and progress in teamwork (as measured by survey before and after the intervention). These were pre-selected by the YUF (and agreed with the evaluators and the EEF).

Some longer-term outcomes such as enhanced opportunities for subsequent employment were also considered, but would not be measured in the time-scale of this trial.

The attainment measures

The attainment outcomes were measured using KS2 English and maths results as the pre-intervention attainment measure and KS3 English and maths results as the post-intervention attainment measure. The rationale for using KS results was high external validity, and also because it reduces the burden of additional tests for both schools and pupils.

KS2 results were obtained from the National Pupil Database (NPD). KS3 results were also to be collected from the NPD. However, after the trial had been planned and was already in progress availability of KS3 data through the NPD changed, meaning that national, standardised KS3 scores were no longer available. Instead, attainment data recorded by schools at the end of Year 9 was collected directly from schools. The data was collected from schools after the end of the trial in September 2015 when pupils were in Year 10. Schools used different approaches to measuring attainment at the end of Year 9. Results tended to be in two formats. Most schools used their end-of-year assessments, which were marked and assessed by teachers, and recorded the results using the old KS3 levels for their own use. There was no evidence that these levels were validated. Some used GCSE grade schemes (as though the pupil were in Year 10), and one school used their own grade scheme. The latter two were all converted to KS3 point scores (from 15 to 53) using conversion tables

provided by those schools. While all schools successfully provided data, and this was successfully standardised, the process is very likely to weaken the findings for attainment compared to what had been planned planned via the NPD.

These results represent the best possible in the circumstances, and creating them involved considerably more work for the evaluators than was originally planned. However, further doubt is cast on their validity by the low correlation between the KS2 scores collected from the NPD and the KS3-equivalent scores collected as a substitute for the KS3 NPD scores. We would usually expect a correlation of about 0.6, whereas for these scores the correlation is only 0.02 for English and 0.01 for maths.

The concerns about the reliability of the outcome measures at KS3 could be addressed by repeating the analysis with KS4 data from NDP, when it becomes available, although this would measure the medium-term impact of the evaluation, rather than immediate impact.

Non-attainment measures

Assessment of the impact of the intervention on young people's wider outcomes was via a bespoke survey instrument developed especially for use in this trial (see Appendix B). The instrument was developed by the evaluators in co-operation with the YUF, the EEF, and the Cabinet Office. This instrument was piloted in two schools from areas not participating in this trial.

The instrument comprised basic questions about whether respondents had participated in any activities similar to those offered by the YUF, and how keen they were to undertake such activities. The pre-test results from these items were to help identify 'survey volunteers' in all schools, regardless of whether those schools were going to be offered the intervention.

In addition, the instrument contained a set of single-item questions on a range of wider outcomes covering concepts including teamwork, communication, motivation, self-esteem, confidence, resilience, civic mindedness, and future intentions (Appendix B). These items were taken from validated instruments, some provided by the Office for National Statistics, the Cabinet Office, reviews of the literature, prior studies by the evaluators, or professional advice. All have clear audit trails leading to their derivation. For example, the item on self-esteem is the one recommended for single-item use by Rosenberg (1965).

The key consideration was that the items were measurable, malleable in individuals, and deemed important by stakeholders—either in their own right or because they are linked to behavioural outcomes including attendance and participation at school. The instrument was also tested for suitability (such that all pupils could respond with minimal assistance), and as appropriate for the reading age of Year 9 pupils. The questionnaire was designed with mostly pre-coded tick-boxes for ease of completion. Some items were reverse coded to try and encourage pupils to focus on the meaning of each one. Two items were based on short stories (vignettes) in which the socially desirable responses were not as clear as in the scaled tick-box questions.

Administration of survey questionnaire

The survey questionnaires were individualised with pupils' names and UPNs printed on them. The printing and electronic marking of the questionnaires were commissioned to TRAX, a commercial company. The pre-intervention survey was conducted prior to randomisation of schools. The post-intervention survey was conducted after the end of the trial in the second and third week of the new academic year when pupils were in Year 10. The forms were delivered by couriers to schools two weeks before the surveys were to be conducted to allow teachers time to sort them out by classes. For the post-surveys, evaluators went to all the schools to supervise the administration of the survey and to collect the forms. This helped to ensure that the survey was conducted consistently across all schools and also to note any intentional or incidental biases in the way the survey was conducted

(since participation was no longer blind). Where the survey could not be conducted within a day, several trips were made, and in some cases where evaluators could not be present, forms were collected by couriers and delivered to TRAX. Pupils who were absent on the day of the survey completed them as soon as they returned and schools were instructed to send these back direct to TRAX in pre-paid envelopes.

Other data

In addition, data on the background characteristics of pupils in both groups was collected directly from schools, and collated, in order to run sub-analyses and to assist potential generalisation of the results to other schools and areas. However, for this evaluation, the interest was with FSM-eligible pupils, so sub-group analyses were conducted using only FSM-eligible pupils (see section 'Additional analysis' below).

Participant selection

Schools

School recruitment was via invitation by the Youth United Foundation through their delivery organisations in Middlesbrough, Lancashire, Manchester, Cleveland and Redcar, Merseyside/-Liverpool, and Tees Valley. The YUF approached 278 schools across these areas via letters, emails, telephone calls, and through local authorities and other national and regional partners. Initially 82 schools indicated an interest and signed the Memorandum of Understanding, but 11 of them failed to return initial data and therefore had to be excluded from the trial. The schools were approached on the basic of geographical location and selected on a first come, first served basis. Interested schools then responded by indicating the uniformed group they would like to offer their pupils (one uniformed group per school). Pupils were therefore not given a choice of uniformed group. Schools that indicated interest signed a note of memorandum indicating their commitment. The YUF then arranged for the uniformed group organisation in the region to contact the lead contact person in the school (who could be the deputy head or headteacher) to set up a unit.

The decision was to recruit only those schools that expressed strong interest, so only 72 rather than the planned 80 were eventually recruited because these were the schools that were the keenest. At the time of recruitment, two schools were on the point of merging so they were randomised as one unit, and the total number of schools became 71. The final 71 schools represented a good mix of different school types. Thirty-eight of these schools were randomised to receive the treatment, and the remaining 33 formed a 'business as usual' control group. More schools were randomised to treatment than to control because the YUF wanted to offer the programme to near the number that was initially planned, which was 40. This was agreed between the YUF and the EEF.

Pupils

Once the school confirmed the uniformed group to be offered, the lead contact person in the school ran a recruitment drive to attract pupils. The target pupils were those in Year 9 (aged 13/14). Pupils were recruited at the end of Year 8. Schools adopted a range of strategies to recruit pupils. Most schools promoted the programme during the school assembly. Some schools invited the respective uniformed group personnel to talk about the programme during the assembly. Other schools offered taster sessions for pupils to generate interest and also to provide pupils with information about what participation in the uniformed group entailed.

Opt-out consent forms were sent to parents by participating schools (an example is given in Appendix D1). If a parent opted out the pupil would be excluded from the trial. In the event, no parents opted out of the trial. Consent to participation entails agreement for the use of pupil background, contextual, and attainment data. In addition, consent was also sought from parents for participation in outdoor and sometimes potentially risky activities (such as handling fire and water activities—see Appendix D2).

Media consent was also sought by individual uniformed youth organisations for photographs to be used (Appendix D3).

Changes to protocol

Although pupil participation in the intervention was meant to be voluntary, in practice schools adopted their own systems of recruitment, including simply allocating pupils to the treatment (meaning that pupil participation was no longer voluntary). In most schools where the programme was over-subscribed, pupils were selected on a first come, first served basis and not randomly selected as proposed. Some schools nominated pupils who they thought would most benefit from the intervention. In one school, teachers identified those aiming at C to D grades at GCSE to 'give them the extra attention which they would normally not have'. In other schools where the take-up was low, recruitment was opened to other year groups. In the case of St John Ambulance, their model was to allow all young people interested in participating to do so because they had the capacity to accommodate larger groups. (This had implications for the choice of control group: see the Analysis section below).

Sample size

The study recruited 71 schools and all pupils in these schools—a total 7,781—were asked to complete the pre-intervention survey (needed to identify the fair comparator groups). Of these, 4,012 were in the treatment schools and 3,769 in the control schools. At the outset, the survey asked pupils if they would like to take part in the kind of activities provided by the YUF: 1,733 pupils in the treatment schools and 1,644 in the control group said they would. These pupils are referred to throughout as 'survey volunteers'. This group includes pupils from both treatment and control schools, including pupils from the treatment schools who said they would be willing to take part but who were not actually selected for participation.

Of the 1,733 pupils in the treatment schools who said they would like to take part, 633 pupils are known to have participated in the uniformed group activities. A breakdown of numbers by uniformed group is given in the table below, and the number of cases in each group at each stage is summarised in Figure 1. Three treatment schools were not able to open the Scout unit because of a combination of poor uptake by pupils, lack of teacher volunteers, and change of management. Four schools which were supposed to be offering St John Ambulance could not get a teacher volunteer to run the unit. Nonetheless, all seven of these schools were analysed as being in the intervention group because of the intention-to-treat approach, as discussed in the Analysis section below.

Table 2: Number of Year 9 pupils participating in uniformed activities

Organisation	Offered to schools	School participated	Pupil participation
Fire Cadets	11	11	202
Scouts	8	5	80
Sea Cadets	8	8	119
St John Ambulance	11	7	232
Total	38	31	633

The 71 schools recruited could be considered a small sample (in terms of degrees of freedom to allocate to two groups), but the trial involved non-cognitive outcomes which are generally less structurally and socio-economically stratified than attainment, and the effect sizes possible for wider outcomes are likely to be higher than for attainment (Gorard and Smith, 2010). The ability to detect any impact will also be considerably enhanced by the number of observations (pupils) taken for each school estimate, and the likely correlation between pre- and post-test outcome scores. Some commentators report a 'minimal detectable effect size' at this stage, based on the outcome of a future significance test. Significance tests do not work as intended by their users, and anyway could not be

used with the kind of data encountered in real-life with missing values and so no standard error (as here). Therefore, presenting minimal detectable effect sizes based on flawed analysis and unachieved assumptions is an error and must be avoided (Gorard, 2016).

Randomisation

In this trial, the sampling and the allocation procedure was at school level. The 71 schools recruited were randomly assigned to treatment (n = 38) or control conditions (n = 33) using a pseudo-random number generator, after the first survey. One school allocated to treatment indicated—after randomisation but before the programme started—that they would like to offer the Duke of Edinburgh award instead. They received no YUF intervention, but agreed to remain in the trial. They were still treated as an intervention school in the analysis.

Randomisation was conducted by the lead evaluator prior to achieving any school- and pupil-level data in order to reduce any chances of selection bias (using a list of 71 random numbers of which 38 were even and 33 odd). The randomisation process was observed by another staff member who had no vested interest in the programme or evaluation process.

Analysis

The two primary attainment outcomes were progress in English and progress in maths (gains between KS2 and KS3).

The two primary non-attainment outcomes were progress in self-confidence and progress in teamwork (as measured by survey before and after the intervention).

Main analysis (presented in Tables 5–8)

To measure the impact of the intervention on these outcomes, it was necessary to identify which groups of pupils should be compared. Although 7,781 pupils were involved in the project in total, selecting the group of pupils for analysis was not straightforward.

Comparing all pupils in treatments schools with all pupils in control schools risked ‘diluting’ the observed impact of the intervention because the intention was that only a minority of pupils in each school (20 per school) would actually take part in the intervention. Instead, pupils in both treatment and control schools were surveyed to identify those who would be willing to take part in the intervention (referred to as ‘survey volunteers’). The intention was to compare the pupils in treatment schools who participated in activities with similar pupils from control schools who did not.

In order to create a valid control group, the intention was that in the treatment schools pupils would be randomly selected from the group of ‘survey volunteers’ to take part in the intervention, and in the control schools, pupils would be randomly selected by the same process for a control group.

However, in practice, treatment schools did not randomly select participants from the ‘survey volunteer’ group: in some schools they took a first come, first served approach, in others teachers decided which children should take part. This meant that a fair control group for the intervention participants could not be created.

Therefore it was deemed that the most appropriate comparison was between ‘survey volunteers’ in the treatment schools and ‘survey volunteers’ in the control schools. This is a valid comparison which allows us to assess whether there was an impact of the intervention among pupils who said they were willing to take part in uniformed youth activities. It does not allow us to make conclusions about the impact of the intervention on pupils who did not say they would be willing to take part.

It is important to note that any observed effect size may be 'diluted' because only a subset of the treatment school pupils who were included in the main analysis actually took part in the intervention.

All of these results (in Tables 5 to 8) were expressed as Hedge's g effect sizes, and the relevant data is presented for pre-intervention (initial balance between groups), post-intervention, and gain scores.

Missing values

Where relevant values were missing for any reason (such as post-test survey results, or post-intervention attainment scores), these cases were omitted from the relevant impact analysis (and are used in the sensitivity analysis instead). 'Creating' missing values from values that are not missing is clearly illogical, can increase bias, and should not be attempted.

Additional Analysis

A number of additional analyses were performed using the same outcomes measures of progress on English, maths, teamwork, and self-confidence.

Pupils in the treatment schools who reported participating in the intervention were compared with all other pupils in the treatment schools (presented in Tables 9 to 12). This comparison did not have the force of a trial because we know there were systematic differences between the two groups. However, it is valuable because it allows us to assess the impact of the intervention considering only pupils who actually participated.

The impact of the intervention on FSM-eligible pupils was assessed by repeating the main analysis, but only for this subgroup (presented in Tables 13 to 16). In this analysis 'survey volunteers' from the treatment schools who were eligible for FSM were compared with 'survey volunteers' from the control schools who were eligible for FSM.

All pupils from the treatment schools were compared with all pupils from the control schools (presented in Tables A1 to A4). The purpose of this analysis was to investigate whether pupil outcomes were influenced simply by being in the same school as those who actually participated in uniformed activities.

Further comparisons (in Appendix A, Tables A5 to A13) also looked at wider non-attainment outcomes measured by the survey instrument but not pre-selected by the YUF.

Most of these results were expressed as Hedge's g effect sizes, and the relevant data is presented for pre-intervention (initial balance between groups), post-intervention, and gain scores. The exceptions are some additional wider outcomes, such as those presented in Tables A6 to A13, were in the form of changes in frequencies, and these are converted into standardised odds ratios.

A further analysis considers, for the treatment group, correlating the post-test and gain scores for attainment and wider outcomes with their known attendance records provided by the uniformed group staff who led the weekly sessions. This is not presented as a 'fair test', but it gives an indication of the impact of dosage.

The four headline outcomes are also presented as the dependent variables in multiple linear regression models, based on entering three predictor variables in two steps (presented in Table 17). The first step contains the appropriate pre-test estimate (KS2 maths score for KS3 maths outcome, and so on) and a measure of FSM-eligibility. The second step contains the treatment group.

None of the results are presented in terms of 'standard errors' or their derivatives such as significance tests or confidence intervals. Such approaches were never designed for use with incomplete samples which, by definition, can no longer be random (Glass, 2014), and the approaches do not and cannot

answer the research questions (Hunter, 1997; Lipsey *et al*. 2012). They are in the process of being abolished more generally (Gorard, 2016).

The presentation of the key effect sizes, along with the RCT design, the number of cases, and the level of attrition are sufficient to judge the security of the findings (Gorard, 2015). However, for ease of understanding, we combined these factors into one standard number. This is the number of counterfactual cases that would be needed to disturb or alter the finding (Gorard and Gorard, 2016).

In line with usual practice for EEF trials, all of the analysis was done on an intention-to-treat (ITT) basis, which means that as far as data is available, all the participants included in the original randomisation of a trial are included in the analysis, even if they dropped out of the treatment. In this case, this means that all treatment school pupils who were surveyed before and after the intervention were included in the analysis, even if their school did not actually deliver any uniformed youth group activity. Doing ITT analysis means that if the 'dosage' of the intervention is not as high as expected, you can expect a 'muted' effect size compared to an ITT trial where the dosage was as intended.

There may be some pupils in the control schools and treatment schools who did not take part in the YUF uniformed group programme but were already, or had been previously, members of uniformed youth organisations or had been involved in volunteering activities outside school. For this reason, our survey asked pupils whether they had been part of a uniformed youth group or been involved in a charity or a voluntary group in the last year, and these were checked for balance between the treatment groups. It also means that any impact from the treatment is likely to be 'muted'.

There is another reason why we might expect a muted effect size: only a fraction of pupils in the treatment schools were planned actually to participate, and in practice the number was even smaller than planned. The funders wanted whole-school comparisons, and the developers did not have the resources to offer activities to each school cohort. Therefore, a compromise was adopted. But it does mean that the results are a likely underestimate of any impact at school level. In conjunction with this, the number of sessions delivered in eight of the treatment schools was under 20, which was considerably low given that this was a one-year intervention. This could also dilute the potential impact.

Process evaluation method

The process evaluation collected information about the mode of delivery and monitored the programme's implementation. It serves two purposes: one is to check that those randomised to treatment receive the treatment as intended and for the required number of sessions in order for intervention effects to be realised; second, it provides intermediate indicators to enable us to explain why the intervention had the effect that it did. It also enables us to identify the features of successful implementation as well as highlighting potential barriers.

In this evaluation, the methods of data collection and analysis for the process evaluation included:

- consultation with the programme organiser, that is, the Youth United Foundation manager who acted as co-ordinator of the programme, and his colleagues (he co-ordinated the collection of data from schools and the uniformed groups);
- informal interviews with uniformed group staff, teachers, pupils and parents;
- document analysis of the programme syllabus and activities;
- semi-structured interviews with programme implementers and teachers via emails;
- observations of, and participation in, the uniformed group activities;

- the collection of data on dosage from the respective uniformed groups from the attendance records; and
- observation visits to assist and monitor the conduct of post-intervention surveys.

It was originally envisaged that the Scouts and the St John Ambulance would be run by teacher- or parent-volunteers who would be trained by the organisations, but this did not happen: at least initially some of the uniformed groups were led by staff from the respective uniformed group organisations. Therefore, the planned observation of training of teacher volunteers was not carried out.

The interviews, participant and implementers' self-reports, and participant observations together enable us to capture the contexts within which the programmes were implemented. All these help to identify the barriers or facilitators to implementation of the programme.

Process evaluation observations involved evaluators visiting the sites where the activities took place. These included the schools, fire stations (for Fire Cadets), or sailing clubs or boating areas (for Sea Cadet activities). For each of the uniformed groups we randomly selected two schools to visit. For each school, two visits were arranged, one at the beginning of the trial and one towards the end, in order to capture change in pupils' behaviour and attitude. In total, 16 site visits were made to eight schools to observe the programme in operation. During the trial an opportunity also arose for the evaluator to attend a Fire Cadets' graduation ceremony in one of the schools not originally selected for the process evaluation. As parents were invited to witness the occasion we took the opportunity to obtain the views of parents as well.

During the field visits ad hoc interviews were conducted with teachers, uniformed youth group delivery staff, and pupil participants. Feedback was obtained from participants regarding their perception of the impact of the programme and some of the issues encountered. The evaluation team also collected detailed syllabuses of the programmes during the fieldwork.

Besides the field visits, data was also collected directly from the uniformed groups. The St John Ambulance, for example, provided case study reports and their own evaluations of pupil participation, and the Fire Cadets collected feedback on pupils' participation.

The process evaluation data was collated and analysed by evaluators initially blind to the trial outcomes and independent of the impact evaluation. The findings of the process evaluation were, however, later used to understand and illustrate the outcomes.

Timeline

Table 3: Timeline

Date	Activity
April–May 2014	Youth United Foundation started to recruit schools in April through the eight delivery organisations in Middlesbrough, Lancashire, Manchester, Redcar, Merseyside and Tees Valley.
May–June 2014	Evaluation team began researching for questionnaire items for the wider outcome survey, identifying items that have been validated and tested. A pilot of the questionnaire was conducted with two primary schools. A few iterations of the questionnaire were made based on feedback from the pupils and teachers. The final questionnaire was sent to TRAX, a commercial printing company for printing.
June–July 2014	Survey forms were delivered to schools by courier.
July–Sept 2014	Survey forms were collected by courier by TRAX for scoring. Schools were then informed of randomisation as soon as they completed the survey.
Sept–Oct 2014	Uniformed group organisations went to schools to recruit pupils. In some schools, however, teachers identified those pupils they thought would benefit from the programme for participation.
Oct 2014–July 2015	Uniformed groups ran the activities in schools.
June 2015	Pupil background data updated and school leavers identified.
Sept 2015	Post-intervention survey administered.
Oct-Nov 2015	School leavers' destination schools were contacted and requests were sought for pupils to take post-survey.
Nov–Dec 2015	All schools completed the survey. Schools were contacted to request for KS3 data or any attainment record for their Year 10 pupils as NPD no longer holds such data.
Jan–Feb 2016	Survey responses were cleaned and checked for errors. Analyses of attainment and survey data. Results were synthesised and final report completed.

Costs

The costs for this project were estimated from inputs provided by the respective uniformed organisations running the programme in the schools. These were submitted to the YUF manager who collated and compiled the data.

The costs for running the programmes in school are likely to vary depending on the number of outdoor activities that can be arranged. They are also different for each uniformed organisations as the kind of activities are different. For example, the Scouts conducted most of their sessions onsite, so no transport fares are incurred, whereas the Sea Cadets sessions were conducted weekly in nearby sailing clubs, which involved transporting pupils from school to the site. The cost per pupil also depends on the size of the unit. For the purpose of this project, we work on the assumption of an average of 20 pupils per school/unit. Twenty was estimated as the optimum number that could be comfortably supported by most uniformed groups.

Impact evaluation

Attrition

No school dropped out from the trial completely, but a number did not deliver the intervention as required. All 71 schools completed and returned the surveys. However, seven treatment schools (three Scouts and four St John Ambulance) were not able to deliver the programme due to a combination of factors:

- Three schools were not able to run the scouting activities because of the lack of volunteer trainers from The Scout Association to run the programme, or did not start because of a combination of poor pupil uptake, change of leadership, and no availability of a teacher volunteer.
- Four schools could not run the St John Ambulance programme because of difficulty in finding a teacher volunteer to run the school unit.

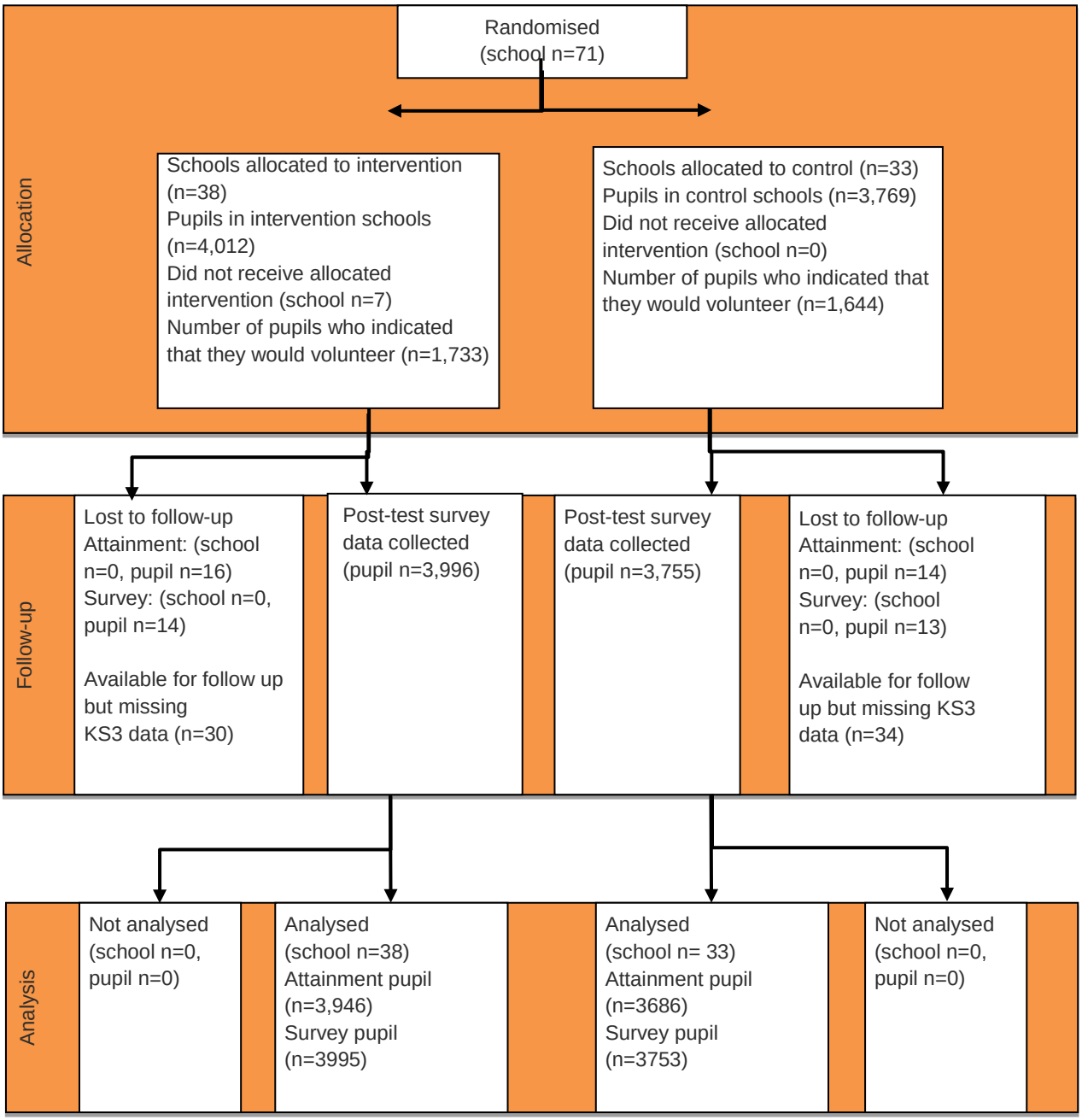
Attrition from the trial

A total of 64 'survey volunteer' pupils did not complete the post-survey. Some of these pupils had left school and their destinations could not be revealed for confidentiality reasons because some were transferred to special schools or pupil referral units for emotional and behavioural reasons. Some were transferred for medical reasons or had severe learning difficulties. Some were also absent from the post-survey due to:

- long term illness;
- permanent exclusion;
- dual registries (where pupils were taught at a different site for part of the time); or
- off-site apprenticeships.

There was also some missing data from the pre-test (Figure 1). Two schools provided only the names of pupils in the uniformed groups for the pre-test instead of all the Year 9 pupils. One school inadvertently shredded the completed survey forms.

Figure 1: Loss of relevant cases from allocation to reporting



Note: This flowchart is for the pre- and post-intervention survey responses. In total, 64 'survey volunteer' pupils are missing KS3 data (because they moved schools), 30 from the treatment and 34 from control. And 27 'survey volunteer' pupils are missing post-intervention surveys (moved schools), 14 from treatment and 13 from control. These represent 2% and 1% of the initial pupils respectively. In addition, a few pupils did not provide a valid response to all items in the survey, and one school shredded the initial survey. The exact figures appear in each table of the results.

Pupil characteristics

The schools allocated to the two treatment groups were similar in many measurable respects (Table 4). In addition, as Tables 5 to 8 show, the pupils taking part in the study were very well-balanced at the outset in terms of reported attainment in maths and English (KS2) and self-reported self-confidence and teamwork skills.

Table 4: School-level comparison between treatment groups

Variable	Intervention group		Control group	
School-level (categorical)	**n/N (missing)**	**Percentage**	**n/N (missing)**	**Percentage**
School Type				
Academy	16/38 (0)	43%	8/33 (0)	24%
Community	7/38 (0)	16%	8/33 (0)	26%
Special	1/38 (0)	3%	2/33 (0)	6%
Foundation	4/38 (0)	11%	8/33 (0)	24%
Voluntary	10/38 (0)	27%	7/33 (0)	21%
Ofsted Rating				
Outstanding	2/38(0)	5%	3/33 (0)	9%
Good	20/38 (0)	51%	16/33 (0)	50%
Requires improvement	13/38 (0)	35%	8/33 (0)	24%
Inadequate	3/38 (0)	8%	6/33 (0)	18%
School-level (continuous)	**n (missing)**	**Mean**	**n (missing)**	**Mean**
Number of Y9 pupils	38 (0)	155 (average number in intervention schools)	33 (0)	155 (average number in control schools)
Pupil-level (categorical)	**n/N (missing)**	**Percentage**	**n/N (missing)**	**Percentage**
SEN	5740/5740 (0)	13%	5205/5205 (0)	11%
FSM eligible		26%		25%
EAL		12%		12%

Outcomes and analysis

Main analysis

As described in the Analysis section above, comparing 'survey volunteers' in the treatment schools and 'survey volunteers' in the control schools allows us to assess whether the intervention had an impact. In terms of progress from KS2 to KS3 in English (Table 5) and maths (Table 6), there is no evidence of any benefit from the intervention for pupils in treatment schools who reported wanting to take part at the outset. The effect sizes are negative (-0.09 for both subjects, computed using the KS3 post-test scores). As discussed in the outcomes section, these findings must be treated with great caution because the KS3 scores were provided by schools in different formats, and many of these 'survey volunteer' pupils did not actually participate in the intervention itself.

Table 5: Progress in English, 'survey volunteer' pupils

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	Post-test 'Effect' size
Treatment	1,622	27.8	4.7	37.9	6.9	10.2	8.3	-
Control	1,548	27.8	4.8	38.5	6.9	10.7	8.2	-
Overall	3,170	27.8	4.7	38.2	6.9	10.4	8.3	-0.09

Note: the KS3 scores are as reported by schools.
Note: The number of standardised counterfactual cases needed to disturb this result would be approximately 93 (which is 29 more than the number of missing cases), suggesting that the results are fairly stable—meaning that the number of missing cases is unlikely to destabilize or alter the findings (Gorard and Gorard, 2016).

Table 6 – Progress in maths, 'survey volunteer' pupils

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	Post-test 'Effect' size
Treatment	1622	28.1	4.8	37.8	8.5	9.7	9.8	-
Control	1548	28.0	5.0	38.5	7.5	10.5	8.9	-
Overall	3170	28.1	4.9	38.1	8.1	10.1	9.4	-0.09

Note: the KS3 scores are as reported by schools.
Note: The number of standardised counterfactual cases needed to disturb this result would be approximately 139 (which is 75 more than the number of missing cases). This means that it would take 75 more missing cases to alter the substantive findings, suggesting that the number of missing cases here is unlikely to destabilize the results.

Both groups reported gains in self-confidence and ability to work with others (teamwork), but the gains were larger for the pupils in the treatment group. This is true for both outcomes (Tables 7 and 8), with effect sizes of +0.1 and +0.04 respectively. Again, because the groups were balanced at the outset it makes little difference whether the effect sizes are calculated for the post-test only or for the gain scores.

Table 7: Progress in self-confidence, 'survey volunteer' pupils

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	Post-test 'Effect' size
Treatment	1,717	5.7	3.0	7.6	2.0	1.9	3.7	-
Control	1,630	5.8	3.0	7.4	2.0	1.5	3.6	-
Overall	3,347	5.7	3.0	7.5	2.0	1.7	3.7	+0.10

Note: The number of standardised counterfactual cases needed to disturb this result would be approximately 163 (which is 136 more than the number of missing cases).

Table 8: Progress in teamwork, 'survey volunteer' pupils

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	Post-test 'Effect' size
Treatment	1717	5.4	2.8	6.6	2.5	1.2	3.6	-
Control	1630	5.5	2.8	6.5	2.4	1.0	3.5	-
Overall	3347	5.4	2.8	6.6	2.5	1.1	3.6	+0.04

Note: The number of standardised counterfactual cases needed to disturb this result would be approximately 114 (which is 87 more than the number of missing cases).

Additional analysis: all pupils

Similar results to those in Tables 5 to 8 appear in an analysis involving *all* pupils (not just the 'survey volunteers' who said they would be willing to take part in uniformed youth group activities), as shown in Appendix A Tables A1 to A4. Further results also show greater gains for the volunteer pupils in treatment schools on almost all aspects of citizenship and attitude, including professional aspiration, volunteering, and willingness to help others (Appendix A Table A5).

Additional analysis: comparing pupils in the treatment schools who actually participated in the intervention with all other pupils in the treatment schools

When we consider only those who reported actually taking up the uniformed group activities (Tables 9 and 10), the potentially negative attainment result is slightly weakened. In the treatment schools, those taking part were well-matched with those not taking part at the outset. At the end, those taking part were slightly behind (effect sizes of -0.08 for both subjects, based on post-test only KS3 scores).

Table 9: Progress in English, treatment school pupils only

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	Post-test 'Effect' size
Participants	487	27.8	4.5	37.4	7.0	9.6	8.2	-
Non-participants	3,293	27.7	4.8	37.9	6.5	10.1	8.0	-
Overall	3,780	27.7	4.7	37.8	6.6	10.1	8.1	-0.08

Note: the KS3 scores are as reported by schools.

Table 10: Progress in maths, treatment school pupils only

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	Post-test 'Effect' size
Participants	487	28.1	4.6	37.0	8.9	8.9	9.9	-
Non-participants	3,293	28.1	4.9	37.7	8.0	9.6	9.5	-
Overall	3,780	28.1	4.9	37.6	8.2	9.5	9.5	-0.08

Note: the KS3 scores are as reported by schools.

For the non-attainment outcomes, considering only those known to have participated and comparing them to the other pupils in the treatment schools, there is almost no sign of relative improvement in the two key wider outcomes (Tables 11 and 12).

Table 11: Progress in self-confidence, treatment school pupils only

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	Post-test 'Effect' size
Participants	286	5.6	3.1	7.6	2.1	2.0	3.9	-
Non-participants	3,067	5.8	3.0	7.4	2.0	1.7	3.6	-
Overall	3,353	5.7	3.0	7.5	2.0	1.7	3.7	+0.1

Table 12: Progress in teamwork, treatment school pupils only

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	Post-test 'Effect' size
Participants	288	5.5	2.8	6.6	2.5	1.1	3.7	-
Non-participants	3,072	5.4	2.8	6.6	2.4	1.1	3.6	-
Overall	3,360	5.4	2.8	6.6	2.5	1.1	3.6	0

Further analysis shows that there was a very small but positive correlation between the attendance score for each pupil taking part in the intervention activities, and their progress in English (+0.02) and maths (+0.06) from KS2 to KS3. And there was a small positive correlation between the attendance score for each pupil taking part in the intervention activities, and their gain scores for teamwork and self-confidence (both +0.07).

Additional analysis: FSM-eligible pupils

The impact of the intervention on pupils eligible for Free School Meals was assessed by repeating the main analysis, but only for FSM pupils (presented in Tables 13 to 16). In this analysis, FSM 'survey volunteers' from the treatment schools were compared with FSM 'survey volunteers' from the control schools.

Although these results do not have the force of a trial (because FSM pupils were not randomly selected), it is interesting to observe the outcomes based only on those FSM 'survey volunteers'. The negative results for attainment are more severe (Tables 13 and 14). There is no indication from this trial that poorer pupils benefitted in terms of attainment just from being in schools which offered uniformed youth group programmes.

Table 13: Progress in English, FSM-eligible 'survey volunteer' pupils

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	Post-test 'Effect' size
Treatment	420	27.6	4.8	35.2	7.5	7.6	8.8	-
Control	289	27.5	5.0	37.0	7.1	9.5	8.5	-
Overall	709	27.6	4.9	35.9	7.4	8.3	8.7	-0.24

Note: the KS3 scores are as reported by schools.

Table 14: Progress in maths, FSM-eligible 'survey volunteer' pupils

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	Post-test 'Effect' size
Treatment	420	28.1	4.7	33.9	9.0	5.9	10.4	-
Control	289	27.6	5.3	36.4	8.1	8.7	9.3	-
Overall	709	27.9	5.0	34.9	8.7	7.0	10.1	-0.29

Note: the KS3 scores are as reported by schools.

In terms of non-attainment outcomes for FSM-eligible pupils, there is little difference between the control and treatment groups (Tables 15 and 16). Any benefit from the intervention for FSM-eligible pupils is less than for pupils more generally, and is negative for the teamwork outcome.

Table 15: Progress in self-confidence, FSM-eligible ' survey volunteer' pupils

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	Post-test 'Effect' size
Treatment	447	5.2	3.1	7.3	2.2	2.1	3.8	-
Control	358	5.3	3.1	7.2	2.2	1.9	3.8	-
Overall	805	5.3	3.1	7.2	2.2	2.0	3.8	+0.05

Table 16 – Progress in teamwork, FSM-eligible ' survey volunteer' pupils

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	Post-test 'Effect' size
Treatment	451	5.1	2.8	6.2	2.7	1.1	3.9	-
Control	357	5.2	2.9	6.5	2.6	1.3	3.8	-
Overall	808	5.1	2.9	6.3	2.6	1.2	3.9	-0.11

Results as regression models

The correlations between the prior scores for the four headline outcomes and their post-intervention equivalents are all low (in the range 0.01 to 0.07). For the two wider outcomes of teamwork and self-confidence this is perhaps not surprising, and may reflect the difficulty of capturing such concepts via a simple questionnaire. The two non-attainment measures are more closely related to each other at each test administration (in the range 0.13 to 0.32). However, pre- and post-intervention scores in tests for English and maths are usually more strongly correlated than they are here. Here, the English and maths scores are linked to each other at each administration (in the range 0.67 to 0.69), but not from KS2 to KS3. This suggests that the KS3 scores provided individually by schools following the abolition of levels differ from previous practice. This all means that the regression models explaining variation in the four outcomes in terms of two predictors (pre-score and FSM-eligibility) are weak (Table 17). Despite this, knowing the treatment group for each pupil makes little difference to the overall results, especially for attainment. This suggests that the treatment has had little impact (as already shown above), and is not responsible for the difference in post-intervention attainment.

Table 17: Regression results for the four headline outcomes, all 'survey volunteer' pupils

Model	KS3 English	KS3 maths	Teamwork	Self-confidence
R at step 1 (prior score and FSM status)	0.20	0.23	0.08	0.07
R at step 2 (treatment group)	0.21	0.23	0.09	0.09

For completeness, Table 18 shows the coefficients for the three variables in these four regression models.

Table 18: Standardised coefficients for variables used in models listed in Table 17

Variable	KS3 English	KS3 maths	Teamwork	Self-confidence
Prior score	0.02	0.01	0.06	-0.04
FSM	-0.20	-0.23	0.05	-0.06
Treatment	-0.06	-0.05	0.03	0.05

Costs

The costs for running the programme varied with uniformed youth groups. It depended on the nature of the activities, the size of the unit (the larger the size, the more cost-effective), the equipment and facilities needed, and whether the delivery staff from the organisations were paid or volunteers. The estimated costs for running the units in school are summarised below.

Scouts (for 20 pupils per unit)	Y1	Y2	Y3
Trainers fees (for 3 trainers)	£120	£120	£120
Equipment	£3,500		
Outdoor activities	£2,000	£2,000	£2,000
Membership fees	£700	£700	£700
Uniform	£800	£800	£800
Total	**£7,120**	**£3,620**	**£3,620**
Sea Cadets (for 20 pupils per unit)	**Y1**	**Y2**	**Y3**
Booking of Area Boat Stations, time of paid staff, running cost, hiring of equipment and facilities.			
Total	**£525**	**£525**	**£525**
Fire Cadets (for 17 cadets)	**Y1**	**Y2**	**Y3**
Day to day resources	£1,060	£1,060	£1,060
Equipment	£2,658		
Training	£1,266	£1,266	£1,266
Staff	£5,256	£5,256	£5,256
Total	**£10,240**	**£7,582**	**£7,582**
SJA (for 20 pupils per unit)	**Y1**	**Y2**	**Y3**
First aid kits, training equipment			
Staff are volunteers (so no cost)			
Total	**£350**	**£350**	**£350**

These costs do not include additional miscellaneous expenses (such as residentials and BTEC qualifications).

Approximate average costs per pupil per year			
	Y1	**Y2**	**Y3**
Scouts	£245	£245	£245
Sea Cadets	£26	£26	£26
Fire Cadets	£420	£420	£420
SJA (does not include uniform)	£18	£18	£18

Process evaluation results

Implementation

The uniformed youth groups were managed and run by different organisations, and so the method of delivery was expected to vary considerably. There were variations across schools and uniformed youth groups in the nature of instruction and training and in the number of sessions delivered. The number of planned sessions in the one-year intervention was reduced in most schools. The Scout units, in particular, had far fewer sessions than the other uniformed youth groups. This was primarily due to delay in starting up. As the Scouts unit relied on teacher or parent volunteers, the challenges faced in enlisting such volunteers led to the delay. One unit could only manage four sessions, another only five sessions in total (compared to 30 that was planned). The Sea Cadets and Fire Cadets managed to deliver 30 sessions on average, instead of the 33 and 38 planned respectively. All the St John Ambulance units completed the 30-week course (including a 12-week first aid course). The average across units was 24 sessions (see Appendix I). Common reasons for not meeting the target number of sessions were late start-up of the units, cancellations due to bad weather (as in the Sea Cadets), and cancellations by schools due to clashes with school-organised activities.

The duration of each session also varied by school and uniformed youth group, but on average each session was two hours long. Offsite activities were occasionally conducted after school and tended to last the whole afternoon. These were for practical training where special equipment was needed. For example, canoeing, kayaking and sailing activities took place in a local boating area, and operational training was taken in the local fire station.

The following is a summary of the activities conducted in the uniformed youth groups units that we observed.

Fire Cadets

Fire Cadets sessions aimed to equip young people with skills to interact and respond to potentially risky situations in their community. All Fire Cadets sessions were conducted by specially trained instructors from the local Fire and Rescue Service. The weekly sessions followed a structured timetable in line with the delivery of the level 2 BTEC Award in the Fire and Rescue Service in the Community. This included a mixture of operational firefighting activities, such as hose running, shipping a standpipe, foam drill, and search and rescue techniques. The Cadets also learnt and practiced the standard drills, safety words of command, fire and water safety, first aid, and concepts related to the structure and role of the Fire and Rescue Service, as well as personal development activities to develop teamwork, leadership, and communication skills. Visits were also arranged for Cadets to the Fire Control room and the Marine Rescue Unit. Fire Cadets in Merseyside had the opportunity to attend a three-day residential camp. A sample scheme of work is attached in Appendix C1. Fire Cadets were issued cadet uniforms and full personal protective equipment during their training (see Appendix F).

At the end of their training Cadets received a completion certificate and a first aid awareness certificate. Upon successful completion, Cadets received an externally and internally verified BTEC level 2 award in Fire and Rescue Services in the Community. Awards were also given for the most improved Fire Cadet and the most outstanding Cadet as encouragement for their participation. These awards were presented at a graduation ceremony.

Sea Cadets

Sea Cadets provided training on a naval theme in which young people were given an opportunity to learn and practise new life skills and skills needed in water. Sea Cadet units were led by trained Sea Cadets staff. Like the Fire Cadets, the Sea Cadets followed a pre-planned syllabus of activities. The

weekly sessions consisted of 45 minutes of recreational or fun activities (such as football, tennis, balloon stampede, tunnel race, or softball) followed by 45 minutes of Sea Cadet activity. The latter included basic drills, semaphore (using Sea Cadets flags), first aid, orienteering, seamanship, meteorology, camping skills (using the stove, pitching tents), and boating sessions. See Appendix C2 for summary of the programme.

In the boating sessions the Cadets were taught boating skills, for example, canoeing, sailing, kayaking, and rowing. All Sea Cadets worked towards the BCU (British Canoeing Union) and the RYA (Royal Yachting Association) Stage 1 qualification. Wetsuits were loaned to pupils during these sessions (see Appendix G). In the winter, the activities included seamanship, customs and traditions of the Royal Navy, uniforms, drill, cooking ration packs, bush-craft, climbing, fire and safety, team building activities, ranks and rates, and first aid. They also took part in a weekend Outward Bound experience where they tried zipwire, campfire, abseiling, problem-solving, bush-craft, laser-zone, caving, and Jacobs's ladder. Visits were organised for the Cadets to the local Sea Cadets Unit where students got to witness the full range of Sea Cadets activities. They also had the opportunity to attend taster lessons on Marine Engineering.

One group of Sea Cadets attended a residential weekend at a local unit learning various skills like stalking and concealment, shelter building, keeping the boat tidy, galley cleaning, and other chores. Another group had a residential in North Wales. These outdoor activities and camps were part of the planned activities.

At the end of the course, trophies were awarded for the Best Cadet, Most Improved Cadet, and for all-round commitment.

St John Ambulance

St John Ambulance is a charity which provides training for skills required in situations of medical emergency. The St John Ambulance course consisted of a combination of theory and practical sessions as well as physical activities. The course included 12 mandatory 90-minute sessions on First Aid skills to qualify for the first aid qualification. These sessions were conducted outside school hours by trained St John Ambulance officers. However, in one school the teacher volunteer—who had started as the school contact for St John Ambulance (providing support and logistics and attending the sessions led by the St John Ambulance trainers)—eventually took over as the trainer himself. He was a trained first-aider and was deemed suitable to lead the sessions. Additional staff members who were enlisted to help out had little involvement. One soon left because unable to commit to the 1.5 hours per week.

All participating pupils were enrolled as cadets of St John Ambulance, and were given a polo shirt as uniform to wear during the weekly sessions. They were also issued with a personal First Aid Kit which they could keep. All pupils completed the Cadet First Aider programme to qualify as Trainee Cadet First Aiders. This enabled them to support their school at events such as Sports Day.

The weekly sessions followed a scheme of work where cadets learnt how to treat a range of injuries and conditions including recognising heart attacks, asthma, supporting an unconscious breathing casualty, CPR, choking, minor and severe bleeding and bandaging, making emergency phone calls, casualty communication and care, and fainting. Every session included a combination of physical activity, theory, and practical work (for example using CPR mannequins). Cadets also took part in Casualty Simulation sessions where they learnt to apply theatre make-up to replicate bruising and different types of wounds, including foreign objects. There were a lot of role-plays and hands-on activities where pupils got to practice the skills taught.

As well as attending weekly sessions, some cadets attended a residential trip where they worked closely with other cadets from around the Northwest to complete their assessments for Trainee Cadet

First Aider. In these sessions cadets learnt more about the organisation and the different activities that cadet units offer.

At the end of the course, pupils' first aid skills were assessed (Appendix C3). The St John Ambulance assessment day involved trainers coming into the school and setting up a first aid scenario. Pupils were invited individually to the room where the assessment was being held and required to react to the situation, talking through their decisions as they make them. Trainers were present to observe and assess their performance. Upon successful completion of the assessment, pupils received a certificate stating that they were first-aid qualified. This certificate is valid for three years, after which they are required to renew it.

Scout activities

The aim of the The Scout Association is to provide an opportunity for learning new skills and teamwork in new settings. The Scout units were conducted by both teacher volunteers within the school and instructors from The Scout Association. In some schools the teachers volunteered, in others they were appointed by the headteacher. In one of the schools we monitored, the sessions were delivered by four or five members of staff from The Scout Association once a month, with a teacher committed to overseeing the programme throughout. These monthly Scout Association-led sessions were practical sessions where pupils were involved in activities such as navigation (map reading), cooking (including what food was suitable for expeditions), team-building activities, tent-building, first aid (dealing with cuts, bruises, sprains, dehydration and hypothermia). These largely followed the DofE award scheme of work (see Appendix C4). In this school, teacher mentors met pupils regularly—formally and informally—over the course of the programme to check on progress. In another school the activities were conducted by a Scout Association leader because no teacher volunteers were available, but a PE teacher was enlisted to provide support subject to availability. The initial few sessions were also attended by the deputy head to observe the delivery.

The weekly sessions were about one to one and a half hours, except in one school where sessions ran for two hours once a month during the DofE scheme. The range of activities and the quality of the sessions varied between schools. In some schools The Scout Association designed and delivered the programme. In one school the programme was developed by the teacher to tailor the activities to feed into the Duke of Edinburgh award. Most of the sessions were conducted within the school, for example, in the school hall and library. The Scout programme also included outdoor activities. For example, all units went to visit a local mountain biking centre (Great Tower Windermere Activity Centre). At the centre, the Scouts learnt a range of skills, such climbing and raft-building.

Volunteering

Although volunteering and community service was not the aim of this project, a number of the uniformed youth groups were able to incorporate volunteering activities into their programme—some more so than others. The Fire Cadets, for example, took part in a number of social action events, which included fundraising activities (bag-packing at local supermarkets) and participating in a number of events to help the local community (supplying food and helping out at the local foodbank, and facilitating bingo events at local old peoples' homes). They also helped raise money by selling cakes donated by local businesses to buy games for a local children's hospital. Some Cadets organised and ran afternoon activity sessions for pupils at a special school. In one school, the Cadets represented their schools in the Remembrance Parade supported by Fire Service staff.

The Sea Cadets picked their own charity project to work with. The St John Ambulance cadets volunteered as first-aiders at their individual schools' sports days as well as becoming involved with a range of St John Ambulance promotional activities in their local areas. Some units also volunteered

their services coaching children and adults to play cricket and play netball. They also helped out with charity work.

Stability of the unit number

Although the number of participants in all the units stabilised after the initial first few weeks, the actual number that dropped out from the programme was difficult to estimate. This was because some pupils, having initially signed up, dropped out of the programme when they found out later (having attended a few sessions) that the programme was not for them. Information collected from the uniformed youth group staff and the school lead contact person suggested that a number attended the first few sessions just to find out more about the programme. Feedback from pupils also suggested that some enrolled not knowing what to expect.

We were also informed that there were pupils who dropped out because of peer pressure. Some pupils were excluded by the uniformed youth group staff for bad behaviour, some because the activities were not deemed appropriate for them. It was also reported that some pupils withdrew from the programme because they were asked to pay for the DofE programme, where this was part of the Scouts programme.

Barriers to implementation

Some of the barriers to implementation were:

Leadership and management support

There were staff changes in 20 of the schools. In some schools, the deputy head and the head of school including the teacher in charge left the school in the course of the year leading to a situation where no staff member was left in charge of the programme. This situation only became apparent when the evaluators tried to contact schools to arrange for the post-intervention survey.

While support from management was generally good in most of the schools, in three of the eight schools we monitored, the uniformed youth group staff (employed by the organisations, not the YUF) suggested that management support could have been better. St John Ambulance unit leaders from one school said that they felt that throughout the project there was not sufficient support from the school management.

One school reported a lack of commitment from the teaching staff who were assigned to look after the programme. For example, the teacher was only present for some of the sessions. There were a couple of schools that used teaching assistants and support staff instead of trained teachers. Uniformed youth organisation staff reported that the absence of a teacher made it difficult to manage challenging behaviours and pupil engagement. Intervention schools were expected to provide a teacher to oversee the programme and ensure pupil attendance. Schools are responsible for the safety and welfare of their pupils, so it was expected that all sessions, including offsite activities (such as sailing, fire house training, and overnight camping) would have a teacher present.

Almost all the barriers below are, in some way, related to the lack of managerial and leadership support.

Staffing

Recruiting teacher volunteers to oversee the uniformed youth group was found to be quite challenging in a number of schools. Four schools were unable to start a unit because they were unable to find a teacher volunteer. A number of schools also delayed the start-up of the programme due to the difficulty of finding a volunteer teacher.

A related issue was the lack of commitment from teachers. Some schools found it difficult to get a teacher committed to the project throughout the programme. In four schools there were three changes in the teacher in charge. In one school the PE teacher came to the sessions only as and when he was available.

Lack of communication with school

Lack of communication between the school and the uniformed youth organisation staff was another barrier. The latter commented that communication with some schools was particularly challenging where there was no dedicated teacher in charge of the programme.

Reduction in number of sessions

Although this was a one-year intervention, some units ran the programme for two terms only. This was deemed to be insufficient for pupils to have the full experience. The main reasons were delay in the setting up of the units, cancellations due to school exams, detention classes, and other after school activities. Schools also occasionally cancelled sessions without prior warning. Teachers also sometimes excluded pupils for bad behaviour as a punishment. The Scout Association reported that clashes with school activities were a barrier to participation.

Although most of the units managed to cover the planned programme of activities in their scheme of work, trainers expressed concern that the contracted timetable meant that they were unable to provide the full experience for the pupils. The Sea Cadets, the Fire Cadets, and St John Ambulance expressed the need for more time to cover the syllabus in greater detail. Because some units were run within curricula time there was a time constraint. This made it difficult to plan for off-site activities like water sports or fire house training, so the experience the pupils had was a watered-down version of what they would actually receive if the units were run properly with full support from the school and teachers. The decision on whether the activities should be held within or outside curriculum time was largely made by the schools (in those schools observed by the evaluators). So support from management in allowing time after-school for such activities could be helpful.

The St John Ambulance staff felt that the one and a half to two hour time slot given to them by the school was insufficient to cover what would normally be a three-hour module. Many pupils said they were overwhelmed by the amount of work they had to cover, but would be happy to stay longer after school to finish some of the activities. St John Ambulance suggested a three-week lesson cycle to cover topics like team-building, theory and practical sessions (for example, using CPR mannequins).

Bureaucracy

School bureaucracy with health and safety requirements meant that planning offsite activities took longer than anticipated, and so fewer such sessions could be conducted. A detailed run-down of the activities and a risk assessment report had to be submitted weeks in advance before such activities could be carried out. This made it difficult to plan outside school activities for the cadets. A visit to the Fire Station, for example, was cancelled because the risk assessment report could not be produced in time. The Sea Cadets were also unable to conduct as many sessions of water sports as they wanted because every activity had to be carefully coordinated with the school. Taking children out of the school required weeks of planning ahead.

Lack of capacity of the uniformed youth organisations

A few schools were unable to start the Scouts unit for a variety of reported reasons, including getting no clear commitment from schools, inadequate capacity of the uniformed youth group to provide training, and inability of schools to provide teacher or parent volunteers to run the unit. On the other hand, the St John Ambulance units were found to be too large to be managed efficiently: although the recommended number of participants was 20, two schools had over 65 pupils enrolled, and five had

over 23. Because St John Ambulance units had the capacity to accommodate large numbers, they did not set a quota, but schools were unable to release the proportionate number of teachers to supervise the units. This led to some disciplinary issues during training.

Pupil behaviour

Uniformed youth organisation staff reported that the bad behaviour of some pupils had affected training. They explained that since they are dealing with fire safety or, in the case of the Sea Cadets, with water, they have to take safety seriously. Discipline is therefore an important element in the training. One contributory factor for the bad behaviour could be that some pupils were nominated rather than volunteered for participation. In the case of St John Ambulance there was not enough teachers on hand to manage the group. Some schools also did not have a committed teacher to supervise the pupils, using instead teaching assistants or support staff.

Lack of facilities

Another factor that could affect the quality of the activities was the lack of appropriate facilities. Fortunately this was very rare, but schools thinking of running uniformed youth groups, such as the Fire Cadets, will need to be aware of what is required. One Fire Cadets school, for example, could not hold training sessions in the school ground because the drill yard was too small, and there was no proper lighting in the winter. The fire hydrant was also not appropriately placed in the school ground. In such circumstances, schools have to consider the logistics of transporting cadets and resources to nearby fire stations.

Half of the Sea Cadets activities were conducted outside the school in the local boating area. This meant that time had to be factored in when running such units, and where they were conducted in school, there was competition with other school activities (such as basketball and exams) for the use of the school hall. Schools have to be prepared to make such provisions for the unit to run efficiently.

Lack of parental support

Lack of parental support could be a barrier to implementation for the Scouts. The Scout Association informed us that they relied on parental involvement to facilitate and sustain pupil interest. One school reported difficulty in getting parental support because of the cultural gap in parental understanding about scouting activities.

Necessary conditions of success of intervention

Lessons have been learned from this trial which could inform how uniformed youth organisations effectively deliver their activities in state secondary schools.

Management support

Support from school leadership is essential to ensuring successful implementation. Management support is necessary to ensure that dedicated teaching staff is assigned to look after the programme, that space, facilities and adequate time are available for training, that support is given to the uniformed youth organisations to run the programme, and that priority is given to the programme. Schools with strong leadership support were able to deliver the programme successfully, and their pupils are perceived to have benefited much from the experience. One Fire Cadets school reported 100% retention. Pupil behaviour, teamwork, and the level of enthusiasm were described as ‘outstanding’. Enthusiasm of cadets was reported to be exceptional.

Dedicated personnel at school

Having dedicated and committed teachers to run or support the programme can help to ensure successful implementation. This is particularly so for Scout groups that are dependent on teacher

volunteers. Having a teacher volunteer as the Scout leader to lead the troop could encourage participation and commitment from pupils. For example, two of the Scout units had an enrolment of over 20 pupils (one had 31 pupils) and were able to keep the numbers constant. Both units had strong and enthusiastic teachers leading the training.

Availability of, and access to, proper training facilities

For effective implementation of uniformed youth activities such as the Fire Cadets and the Sea Cadets accessibility to training facilities is essential. All the Fire Cadets schools apart from one were able to run the training within the school grounds. This meant that pupils did not have to travel to the fire station for training, thus saving time and cost. Conducting the training in the school also gives visibility of the uniformed youth groups to other pupils in the school. Pupils felt proud to be seen in their Fire Cadet gear. This can help motivate and encourage other pupils to join.

Having an optimum pupil number per unit

For successful implementation, there needs to be an optimum number of pupils. If the unit is too large, it may be difficult to manage efficiently. On the other hand, if too small it becomes unviable and not cost-effective. In this trial, four schools had fewer than ten pupils (see Appendix H). The optimum number depends on the capacity of the uniformed youth organisation to support the programme and also the availability of teachers within the school to oversee the delivery and accompany pupils on offsite activities, such as residential camps.

Dedicated time

Having a pre-specified and regular time for the training sessions is essential to successful implementation. Where schools were given a dedicated time, and where this time was protected, the training was delivered successfully with minimum interruptions. The units were able to complete the planned number of sessions. However, where training time was not protected, priority was often given to other school activities, potentially causing disruption. These other activities included detention classes for pupils. In addition, the school hall—used for some of the training—was often used for other extra-curricular activities as well. This can signal to pupils that uniformed youth group activities are less important, which can affect the morale of uniformed youth group staff and pupils.

Perceived outcomes and attractiveness to stakeholders

In general, the uniformed youth activities were well received by pupils, teachers, and uniformed youth organisation staff, as observed by the independent evaluators. The study recorded positive feedback and comments from all participants, including parents. The programmes of activity can be considered a success to the extent that they achieved the aims in offering opportunities to disadvantaged children to learn important life skills and to participate in youth social action and volunteering activities. Feedback from stakeholders (parents, teachers, delivery staff, and pupils) suggests that pupils have benefited from these experiences and their lives enriched. Of particular benefit were the weekend residential stays, organised by the Fire Cadets, the Sea Cadets and St John Ambulance. These were described by trainers as providing valuable experiences which these pupils would not otherwise have had. Teachers and delivery staff observed positive changes in pupils' behaviour as a result of the experience. There were many anecdotal accounts of improvements in pupil behaviour and skills. We could only report a summary of these.

St John Ambulance

The St John Ambulance programme was perceived by pupils as fun, enjoyable and useful. The programme was rated seven out of a possible ten by all the pupils. The pupils were impressed with the

professionalism of the uniformed youth organisation staff and the quality of the training they received. They liked the fact that they were learning something useful in real life, skills that they could actually put into practice. Pupils talked enthusiastically about the first aid skills they had learnt. And although not all had the opportunity to use their skills, some said they have used their skills to teach younger pupils. One pupil said:

> '*When this course is finished I was saying to my mum that I don't want to stop here. I want to go on, like learning more, to help myself improve.*'

Pupils also liked the fact that they had a certificate at the end that they could put on their CV. The pupils said they would strongly recommend the course to other pupils.

Teachers were impressed with the range of activities experienced by the young people and the support given to their pupils. Overall, teachers were extremely pleased with the organisation and the management of the uniformed youth group. They also liked the fact that the delivery staff had very good rapport with the pupils. The teachers were also very impressed with the pupils' commitment to the programme. They explained that the training received by the St John Ambulance pupils had wider application for both the pupil and the school. As qualified first aiders pupils can act as the first aid representative for the school on sports days and field trips. Some school trips would not be possible without the presence of a first-aider. In this way the training they received benefitted both the individual and the school.

Pupils had asked if they could continue with the programme after the trial. The St John Ambulance organisation had expressed their interest in running the programme for those schools that had asked for it.

> '*If the school decides to continue with the Unit next year the current Unit Leaders would be happy to continue running them. However they would like more support from the school management so they have more confidence when running the Unit*' (YUF manager).

The trainers also reported that in general pupils enjoyed their experience.

> '*Overall the cadets thoroughly enjoyed attending the SJA cadet unit and it is clear that each cadet has gained an increase in social skill alongside their First Aid skills*' (St John Ambulance delivery staff member).

In terms of skills, St John Ambulance delivery staff also felt that the project had benefited pupils enormously. They reported that the cadets had gained skills in teamwork, confidence, and first aid.

Delivery staff also provided individual case studies to illustrate the learning outcomes of the cadets. Most of these related to their first-aid skills. For example, one pupil removed a foreign object from his mother's eye, another made a sling to support his grandmother's broken arm. One pupil applied a cold compress on his mother's injured foot. Another pupil treated his friend's nose bleed. One girl helped dislodge a piece of chocolate from the throat of her baby niece. Delivery staff also reported that first aiders had competently and confidently dealt with minor injuries such as sprains, strains, minor bleeds, and minor head injuries.

Fire Cadets

The Fire Cadets also reported that they enjoyed the programme, particularly the range of skills that they had learnt, such as how to prevent fire and how to stay safe. They also spoke about learning risk assessments, life skills, and first aid. They said they had 'got a lot out of the course' in the short time and had a lot of fun too.

Positive feedback was also received from teachers. One headteacher was so impressed with the Fire Cadet programme that he had agreed to be a 'Champion Headteacher' for the project. He had also offered to host a focus group at the school for other headteachers and lead contacts to attend. This is what he said:

> '*I just wanted to let you know how positively we are feeling about the Fire Cadet programme. The students are fully engaged and enthused and already we are seeing a positive impact in terms of confidence and teamwork. Having watched a couple of the sessions I feel that much of the success so far is down to your organisation of the activities and the delivery of your Fire Fighters who have been excellent.*'

Teachers, delivery staff, and parents reported marked improvements in behaviour. At the Fire Cadets graduation ceremony attended by parents, staff and Fire Cadets personnel, pupils demonstrated their rescue skills. The cadets showed confidence as they came up individually to make their own personal speech about their experiences. All the parents we spoke to expressed their pride in their children, especially when they saw them for the first time in their Fire Cadet gear. They all commented on how pleased they were with their children's development. Trainers and delivery staff also echoed similar comments about how the Cadets had grown over the year, from shy cumbersome individuals to confident and competent young adults.

A number of schools indicated that they would very much like the programme to continue after the trial. In fact, some Fire Cadets pupils had collectively written to the Fire Service to ask for the programme to be continued in their school.

Scouts

The Scouts rated enjoyment as top of the list of things they liked about the programme. Among the things they enjoyed were activities such as camping and building tents, learning the different types of knots, and how to make fires. Interestingly, many boys said they enjoyed the life-skill sessions more than the fun sessions. They all enjoyed the outdoor activity at the local mountain biking centre.

In terms of what they had gained from their experience, the pupils said that the programme had helped to 'keep us engaged in doing something useful after school, otherwise we would just go home and sit in front of the TV.' A number of boys also said that they were enjoying school more now. One said he was now more open to new ideas. Teachers also observed that pupils were able to transfer the skills learnt to assist them with other projects at school, and as evidence towards other qualifications (such as the Duke of Edinburgh award).

Similarly, the Scout leaders were pleased with the way pupils responded to the training. Parents were also very appreciative about the experience that their children had received.

> '*Just wanted to thank you and all the staff who gave their time at the DofE [Scouts] practise expedition at the weekend. Tom had a great time and although it was only the practise part of the award, he has a great sense of achievement at completing it.*'

> '*Your time and effort is much appreciated, please pass on my thanks to the other members of the team also.*'

Sea Cadets

The Sea Cadets also reported that they enjoyed the programme, especially the residential weekend at Colomendy in Wales. Almost all the pupils said they had learnt a lot from the programme and would have no hesitation recommending it to their school mates. All the pupils said they would like to continue if the programme was offered the following year.

> '*I am wanting to join the Royal Marines Cadets at City of Liverpool Sea Cadets. I have already been to look around. I enjoy army cadets and sea cadets so Royal Marines cadets is a mix of the two. I want a career in the army so think this will help. The Sea Cadets after school club has been great!*'

When asked why they wanted to join the Sea Cadets, one pupil replied:

> '*I think I may fail my GCSE's so I need something else for the future on my CV and thought the Sea Cadets would help me gain qualifications.*'

Sea Cadets delivery staff observed that pupils had developed in confidence and communication skills. The instructors reported that on the whole pupils responded well to the training and improved behaviour was apparent. Individual pupils also reported how they had developed in terms of skills and character. Examples of pupils' reflections on their achievements include:

> '*I have got a lot stronger at working in a team and delegating. I enjoyed building a shelter with a small team at Colomendy and I have a great partnership with Jermain at our weekly boating sessions.*'
>
> '*During our short time with Sea Cadets, we have sharpened our already existing skills e.g. Teamwork and Leadership, while learning new life enhancing and helpful ones, all through the activities we have performed.*'
>
> '*The Sea Cadets has been Great*.'
>
> '*It has taught me new skills.*'
>
> '*We as a team have achieved what we came here for, new skills, experience, but most importantly... a good time.*'
>
> '*I enjoyed it a lot.*'

Delivery staff also reported obvious improvements in pupils' self-confidence and leadership skills. One pupil had gained so much in the short time that he is now helping to run some of the sessions. As pupils were awarded for their achievements and attendance, delivery staff and teachers reported that this boosted their self-esteem. Improvements in behaviour, co-ordination, teamwork, leadership skills, and communication skills were also reported. Teachers reported that a number of pupils who used to have detentions were now regularly attending Sea Cadets. The Sea Cadets also expressed interest in continuing with the programme after the trial. Our understanding is that at least one school is now able to continue to offer their pupils the Sea Cadets programme through YUF.

The volunteering projects organised by some of the units provided opportunities to practice organisational and leadership skills. Teachers and delivery staff reported that pupils demonstrated initiative and innovation in planning and organising these activities. The Fire Cadets Team Leader said that the experience gave the Cadets a sense of pride and she was clearly touched herself by the gestures and all round efforts of the young people. The food bank manager whom the cadets approached for help expressed delight with the Cadets' efforts and their work attitude.

Formative findings

The process evaluation feedback suggests a number of factors that could affect the effective implementation of such a programme. In a number of schools the number of sessions actually delivered was much lower than planned (see Appendix I). One Scout unit met only once a month. This was due to late start-up, longer time taken to recruit interested pupils, and difficulties in getting teacher and other volunteers to run the unit. The setup and delivery were therefore more condensed and

watered-down versions of the usual uniformed youth activities that one would find in such a setting. As a result, the experiences of pupils may be different to those received from the more established uniformed youth programmes. Despite the condensed timetable, the majority of the units were able to cover the essential aspects of the syllabus. The St John Ambulance cadets, for example, completed the 12-week first-aid course, the Sea Cadets completed the training necessary for the BCU and RYA Stage 1 qualifications, and the Fire Cadets completed the BTEC level 2 award for Fire and Rescue Services in the community.

However, the quality and the intensity of implementation varied between schools and uniformed youth groups. The key differences between the more successful and the less successful schools lie in the leadership support and commitment of teacher involvement. The schools that completed the greatest number of sessions tended to be those where the school leaders took an active interest in the programme, where the lead teachers showed passion and commitment to the programme, and where there was relative stability among the teaching staff. The schools which had the lowest number of sessions were those where there was a lack of commitment by teachers or difficulty in finding teacher volunteers to oversee the units (leading to start-up delays), and crucially where management support was absent. Some units were run with little knowledge from the school leaders. This was largely due to staff changes and no leadership involvement. Some unit leaders felt that throughout the project there was not sufficient support from the school management and that this led to poor attendance and disciplinary issues among pupils. Some units reported that a number of sessions were cancelled (sometimes without warning) for other school activities. Pupils were also taken out of sessions for detention classes, indicating the low priority that schools gave to the programme. A number of delivery staff commented that it was a challenge working with schools. They felt that strong support and commitment from teaching staff would have helped to ensure that a minimum number of hours was dedicated to the programme. It is possible that some schools saw the programme as a short-term project rather than as part of the wider school curriculum. As such the programme was not given the priority and thus the support needed for effective implementation.

Recommendations

This section outlines some of the things that could be considered when introducing uniformed youth programmes in state secondary schools. It was clear that setting up the units, maintaining them, and getting sufficient pupils to take part were all challenging in some settings. Therefore, some of these recommendations are suggestions for how these challenges could be met.

Strong leadership support

If uniformed youth programmes are to be encouraged in schools, they have to have the support of the school leadership, and both school leaders and teachers must believe in the positive benefits of such programmes such that priority is given to the programme in terms of time, staff involvement, and use of facilities.

Make participation count

To encourage participation and commitment, some kind of accreditation could be given for uniformed youth activities. For example, a common suggestion by teachers and delivery staff for improving take-up and retention was to promote the uniformed youth group as part of the Duke of Edinburgh award. The DofE programme is already involved in after-school activities, such as the Explorer Scouts. Feedback from teachers suggests that these uniformed youth activities can add to the DofE award and also to pupils' CV, and also that schools are more likely to give a programme attention and priority if it leads to accreditation.

In addition, the most common reason pupils gave for volunteering participation in the uniformed youth group activity was that it would be an additional qualification that they could put on their CV, and this was a selling point that schools used to recruit pupils. Therefore, a similar system like the Creativity,

Action and Service (CAS) component of the International Baccalaureate could be introduced where credits could be awarded for uniformed youth group participation and these would count towards the GCSE grades.

Make participation part of the school curricula

For uniformed youth organisation activities to be successfully implemented, consideration has to be given to finding teachers—who are already committed to a range of activities in the school—willing to commit the time. Volunteering to help out with the uniformed youth group is at the teachers' own time—over and above their other commitments. One model that has been successfully adopted in many independent schools is to structure the timetable to allow for one afternoon for one day a week to be devoted to extra-curricular activities. A growing number of academies are already extending the school hours and the current government is considering increasing the length of school day to nine hours. These extra hours could be used for such activities. If uniformed youth group activities are seen as part of the wider school curriculum, it may be easier to get headteacher support and commitment from teachers. Teacher involvement in such activities would then be considered as part of their teaching responsibility and not as an additional workload.

More outdoor or hands-on activities

To encourage participation and enjoyment, more outdoor activities could be organised. This is a very common request made by pupils, delivery staff, and teachers. Some arrangements could be made to facilitate this as currently the bureaucracy of health and safety requirements meant that such activities could not be planned. One option might be that training providers could inform schools at the beginning of the year of the number and nature of outdoor activities that will be held. In this way, standard risk assessments could be applied in advance.

Other points suggested by the delivery staff

- The Sea Cadets would have preferred to run the programme in the local Sea Cadets Unit where the facilities and equipment are kept and where pupils could also see what other cadets do. This would be more motivating for them.
- The Scouts suggested having more resources for outdoor activities, budgeting for overnight camps at outdoor activity centres, and incentivising pupils by engaging in joint activities with explorer Scouts.
- St John Ambulance teachers suggested having the same delivery staff for all sessions for continuity and to allow pupils to build a rapport with the trainers. They suggested having trainers who were professional first-aiders, and more opportunities to try out and use the skills taught. Better integration of presentations and practical activities was also recommended.
- The St John Ambulance also suggested having a Youth Development Support Officer, able to attend on a weekly basis and support Unit Leaders when delivery staff do not turn up or if they have been unable to create plans for a session.
- Some teachers suggested interviewing pupils to ensure that the 'right' people were selected or enrolled on the course.
- Delivery staff said they would like to have better information about the pupil participants beforehand so that they could tailor the course.

Control group activity

No special programmes of activities were organised for the control schools. To prevent demoralisation and dropout from the trial, they were offered an incentive payment of £1,500 on completion, and delivery of all post-intervention data. This allowed control schools to use the money to start a new unit

in their school, if they wished. To ensure their continued engagement termly newsletters from the YUF were sent to these schools.

Conclusion

Key conclusions
1. There is no evidence that the intervention had any benefit in terms of pupils' academic performance. Although the attainment data suggests a small negative impact, the quality of this data is too low to draw this conclusion with confidence. The data quality was compromised due to changes in national testing.
2. Participation in the intervention is associated with a small improvement in self-reported non-attainment outcomes including self-confidence and teamwork. It is possible that these small effects are an underestimate due to technical issues regarding the groups of children that were compared in the analysis.
3. For pupils eligible for free schools meals, there is no evidence that the intervention had a positive impact on academic attainment or self-reported character attributes. Again, the attainment data suggests a negative impact, but the quality of this data is too low to draw this conclusion with confidence.
4. Almost a quarter of schools did not deliver the intervention due to issues such as lack of teacher volunteers, and other schools did not deliver a full programme of activity. Support from senior leaders, dedicated space, school staff time, and a dedicated slot in the school day or after school were all identified as necessary conditions for successful implementation.
5. Study participants were extremely positive about the intervention and many felt it had a positive effect on the behaviour and skills of participating pupils.

Limitations

This section identifies issues which may have affected the trustworthiness of some aspects of the evaluation.

Identification of target pupils

The selection of pupils varied across the schools. Those pupils who initially indicated interest may not necessarily be those who eventually participated in the funded activities. In many schools there were 40 to 60 who indicated interest initially but the number who eventually stayed on was much lower. Many of these pupils signed up for the taster sessions to find out what the programme had to offer before making up their mind. This made it difficult to define attrition (in terms of individual participation). Pupils left for a host of reported reasons: lack of interest, clashes with other school enrichment activities, detention classes, withdrawn for disruptive behaviour, or in some cases the programme was found to be unsuitable for the pupil. In a number of schools, participants were not volunteers but selected by teachers for participation (see Methods section on Changes to Protocol). To overcome this problem, we asked three questions in the survey to determine those who had volunteered participation, those who were selected for participation, and those who would have enrolled if they were offered the chance. The latter group was labelled 'survey volunteers'.

'Muted' effect size

Given the fact that only a fraction of pupils in the treatment schools were planned actually to participate, and in practice the number was even smaller than planned, the estimated impact of the intervention is likely to be muted. The funders wanted whole-school comparisons, and the developers did not have the resources to offer activities to each school cohort. Therefore, a compromise was adopted. But it does mean that the results are a likely underestimate of any impact at school level. In conjunction with this, the number of sessions delivered in eight of the treatment schools was under 20, which was considerably low given that this was a one-year intervention. This could also dilute the potential impact.

Validity of performance data

There are doubts about the comparability of the end of Year 9 data (equivalent to the former KS3 assessment) provided by some schools. Due to changes in availability of KS3 data through the NPD, national, standardised KS3 scores were no longer available. In other words, there was no available national measure of pupils' end of Year 9 performance in English and maths. Collecting data on this performance from individual schools was not only time-consuming, but it meant that the evaluation was based on whatever schools could provide. Most schools provided the equivalent of KS3 levels or points scores. Some used GCSE early grades that could be converted to KS3 scores. With a few schools it was not clear whether the scores were current or predicted grades. One school provided test scores that were incompletely matched to pupils on the pre-survey list. Another school claimed that they were not happy with the data they provided as they did not think it was accurate, but it was what they had at the time. This should affect the confidence one has in the attainment results.

Attrition

There was a high staff turnover. In 20 of the schools several lead contact teachers were changed in the course of the year. New staff members sometimes had no knowledge of the school involvement and were not aware of the school's agreement to provide data or to conduct the survey.

Pupil turnover was also quite high in a number of secondary schools. At least three schools had over 50 school leavers in the year. These were always followed up to their new schools, where known, but not all of the survey forms sent with pre-paid reply envelopes were returned. A number of pupils were also absent for one or other of the surveys despite the two-week window to complete the survey. Besides school leavers and absentees, a number of pupils were also missing from the survey either due to long-term illness, permanent exclusion, being educated on dual sites, or on apprenticeship schemes and educated offsite. One school closed in the middle of the project and its pupils were distributed across four to five neighbouring schools. Every effort was made to locate these pupils.

All of this affected the survey more than the initial attainment data from the NPD (which was based on the UPNs of pupils present in the 71 schools at the outset).

Interpretation

In terms of attempts to improve attainment, especially for the poorest pupils in England, there is no evidence that the intervention had any benefits. It is likely that the abolition of KS3 levels confused the attainment outcomes, making them less trustworthy. But it is clear that there is no evidence that treatment schools, the 'survey volunteer' pupils within them, or even the actual participants improved their attainment more than would be expected without the intervention.

In some ways, this is consistent with the objectives of the uniformed youth organisations, with their emphasis on character-building and civic participation. Here, the evidence is stronger, more positive, and also consistent with prior work. The headline indicators selected before the trial by the YUF (for self-confidence and team work) suggest a small differential improvement for the 'survey volunteers' in the treatment schools. This is backed up by the same kind of improvements for all pupils in the treatment schools—in other words, if there is an effect it is not caused solely by motivation or self-selection—and for all other indicators of youth social action, aspiration, and well-being. The same improvements appear in the responses to the social action vignettes as in the self-report scales. Given that the intervention itself was received by only a minority of pupils per year, only a small average result was to be expected. Therefore, it is possible to conclude that there is some evidence that the intervention is effective for non-attainment outcomes as portrayed by self-reported results for a wide range of non-cognitive outcomes.

Future research and publications

Future research could look at the impact of full participation or exposure to a uniformed youth group programme. As this was a one-year intervention, with some units starting late and several sessions cancelled, some pupils did not have the full experience of being part of their respective uniformed youth organisations. One unit had only four, and another had only five sessions in total. Uniformed youth organisations expressed the desire to involve pupils in more outdoor and volunteering activities: the shortened programme meant that the courses were not as intensive and broad as they would have liked. Future research could look into answering the following questions:

1. What is the minimum number of sessions required for any impact of participation in a uniformed youth group to be realised?
2. Would continuous participation for three or more years yield stronger results?
3. What is the long-term impact of school participation in uniformed youth activities in terms of employability?
4. In addition, the concerns about the reliability of the outcome measures at KS3 in this study could be addressed by repeating the analysis with KS4 data from the NDP, when it becomes available, although this would measure the medium-term impact of the evaluation, rather than immediate impact.

As with all of our previous evaluations, we aim to produce an academic paper from this study.

Acknowledgements

Other than the five authors, the following researchers assisted with the fieldwork for this evaluation:

Richard Barrie

Jonathan Cairns

Laurence Droy

David Sanders-Ellis

Franzi Florack

Ourania Maria Ventista

References

Arches, J. and Fleming, J. (2006) 'Young people and social action: Youth participation in the United Kingdom and the United States', *New Directions for Youth Development*, 2006 (111), 81–90.

Birdwell, J., Birnie, R. and Meham, R. (2012) *The state of the service nation: Youth social action in the UK*, London: DEMOS.

Birdwell, J., Scott, R. and Reynolds, R. (2015a) *The double benefit of youth social action could help to tackle some of our most social problems*, Service Nation 2010, London: DEMOS.

Birdwell, J., Scott, R. and Koninckx, D. (2015b) *Non-formal learning could help to build character and close attainment gap: Learning by doing*, London: DEMOS.

Boeck, T., Makadia. N., Johnson, C., Cadogan, N., Salim, H. and Cushing, J. (2009) *The impact of volunteering on social capital and community cohesion*, Leicester: Youth Action Network.

Bradbury, S. and Kay, T. (2005) *Evaluation of the pupil centred stages of phase one of the Step into Sport project*, Loughborough: Institute of Youth Sport.

Cooperative StreetGames Young Volunteers (2014) *The Cooperative StreetGames Young Volunteer Programe. Evaluation report for year six: 20012-2013*, London: Street Games. http://www.streetgames.org/sites/default/files/streetgames%20briefing%20paper%20-%20eval%20report%202014.pdf

Drever, E. (2010) *2008-2009 Citizenship Survey: Volunteering and charitable giving topic guide*, London: CLG.

Duke of Edinburgh (2010) *The impact of the Duke of Edinburgh's award on young people*, Windsor: Duke of Edinburgh.

Family, Kids and Youth (2015) *Youth social action journey fund evaluation: report of research results*, London: Youth United.

Fogelman, K. (1995) 'Why is citizenship so important?' *Citizenship*, 4, 19–23.

Girlguiding (2012–2013) *Girlguiding impact report 2012-2013*, London: Youth United Foundation.

Glass, G. (2014) 'Random selection, random assignment and Sir Ronald Fisher', *Psychology of Education Review*, 38, 1, 12–13.

Glover, A. and Sparks, J. (2009) *The impact of Combined Cadet Force contingents in state secondary schools in Wales*, Newport: University of Wales.

Gorard, S. (2015) 'A proposal for judging the trustworthiness of research findings', *ResearchED,* January 2015. http://www.workingoutwhatworks.com/en-GB/Magazine/2015/1/Trustworthiness_of_research

Gorard, S. (2016) 'Damaging real lives through obstinacy: re-emphasising why significance testing is wrong', *Sociological Research On-line*, 21, 1. http://www.socresonline.org.uk/21/1/2.html

Gorard, S. and Gorard, J. (2016) 'What to do instead of significance testing? Calculating the "number of counterfactual cases needed to disturb a finding"', *International Journal of Social Research Methodology*, 19, 4, 481–489.

Haste, H. (1996) *Understanding voluntary organisations*, London: Penguin.

Hunter, J. (1997) 'Needed: A Ban on the Significance Test', *Psychological Science*, 8, 1, 3–7.

Kirkman, E., Sanders, M. and Emanuel, N. (2015) *Evaluating Youth Social Action: An interim report*, London: Behavioural Insights Team.

Kirkman, E., Sanders, M., Emanuel, N. and Larkin, C. (2016) *Does participating in social action boost the skills young people need to succeed in adult life? Evaluating Youth Social Action: Final report*, London: Behavioural Insights Team.

Lipsey, M., Puzio, K., Yun, C., Hebert, M., Steinka-Fry, K., Cole, M., Roberts, M., Anthony, K. and Busick, M. (2012) *Translating the statistical representation of the effects of education interventions into more readily interpretable forms*, Washington DC: Institute of Education Sciences, p.13.

Low, N, Butt, S, Ellis, A and Davis, J. (2007) *Helping Out: A national survey of volunteering and charitable giving*, National Centre for Social Research and Institute for Volunteering Research, 2007.

Moon, G., Twigg, L. and Horwood, J. (2010) *The societal impact of cadet forces. A report prepared for the Council for Reserved Forces' and Cadets' Associations*, London: The Council of RFCA.

Ockenden, N and Stuart, J. (2014) *Review of evidence on the outcomes of youth volunteering, social action and leadership*, Institute of Volunteering Research, London: NCVO.

Office for National Statistics (2015) *Harmonised concepts and questions for social data sources: Interim harmonised principle, Personal Wellbeing*, Titchfield, Fareham: ONS.

Rosenberg, M (1965) *Society and the adolescent self-image*, Princeton, NJ: Princeton University Press.

Social and Character Development Research Consortium (2010) *Efficacy of Schoolwide Programs to Promote Social and Character Development and Reduce Problem Behavior in Elementary School Children (NCER 2011-2001)*, Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education.

Volunteer Now (2014) *Evaluation of the impact of volunteering in the uniformed organisations in N Ireland*, Belfast: Volunteer Now.

Ward, F., Thurston, M and Alford, S. (2009) *RESPECT: A personal development programme for young people at risk of social exclusion. Final report*, Chester: University of Chester.

Appendix A: Additional results for the wider outcomes

Table A1 – Progress in English, all pupils

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	'Effect' size
Treatment	3780	27.7	4.7	37.8	6.6	10.1	8.1	-
Control	3058	27.7	4.8	38.5	6.7	10.8	8.2	-
Overall	6838	27.7	4.8	38.1	6.6	10.4	8.1	-0.09

Note: the KS3 scores are as reported by schools

Table A2 – Progress in maths, all pupils

	N	KS2 points	SD	KS3 points	SD	Gain score	SD	'Effect' size
Treatment	3780	28.1	4.9	37.6	8.2	9.5	9.5	-
Control	3058	27.9	5.0	38.3	7.5	10.3	9.0	-
Overall	6838	28.0	4.9	37.9	7.9	9.9	9.3	-0.09

Note: the KS3 scores are as reported by schools

Table A3 – Progress in self-confidence, all pupils

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	'Effect' size
Treatment	3944	5.8	2.8	7.3	2.1	1.6	3.5	-
Control	3553	5.9	2.8	7.3	2.0	1.5	3.4	-
Overall	7497	5.8	2.8	7.3	2.0	1.5	3.4	+0.03

Table A4 – Progress in teamwork, all pupils

	N	Pre-survey	SD	Post-survey	SD	Gain score	SD	'Effect' size
Treatment	3961	5.2	2.7	6.3	2.6	1.1	3.5	-
Control	3544	5.3	2.7	6.3	2.5	1.1	3.4	-
Overall	7505	5.2	2.7	6.3	2.5	1.1	3.5	+0.01

Table A5 – The 'effect' sizes for all attitude scale items from the survey instrument.

Item	All pupils	'Volunteer'	FSM-eligible
Good at explaining	+0.03	+0.06	-0.03
Like meeting new people	0	+0.04	+0.07
Can work with others	+0.01	+0.07	-0.04
Can do most things	+0.03	+0.10	+0.04
Like to complete task	+0.05	+0.09	-0.09
Make my area better	+0.04	+0.07	+0.17
Like to be told what to do	+0.06	+0.04	+0.12
Often afraid to try new	0	+0.01	0
Happy most days	+0.01	+0.04	+0.11
Try to understand others	+0.02	+0.06	+0.10
Know where to get help	+0.05	+0.08	+0.11

Table A6 – Change in professional aspiration odds ratio from pre- to post-survey, all pupils

	Pre- 'professional'	Pre- 'non-professional'	Pre-Odds ratio	Post- 'professional'	Post- 'non-professional'	Post-Odds ratio
Treatment	2121	1834	0.90	2053	1924	0.95
Control	1967	1530	-	1887	1678	-

Note: this table compares those listing a professional occupation with all others

Table A7 – Change in social responsibility odds ratio from pre- to post-survey, all pupils

	Pre- 'responsible'	Pre- 'non-responsibl	Pre-Odds ratio	Post- 'respon	Post- 'non-	Post-Odds ratio

		e’		sible’	responsible’	
Treatment	3146	805	1.00	3280	713	1.15
Control	2802	716	-	2853	715	-

Table A8 – Change in generosity odds ratio from pre- to post-survey, all pupils

	Pre-‘generous’	Pre- ‘non-generous’	Pre-Odds ratio	Post-‘generous’	Post-‘non-generous’	Post-Odds ratio
Treatment	1257	2709	0.96	1083	2896	1.05
Control	1165	2400	-	928	2620	-

Table A9 – Change in charitable activity odds ratio from pre- to post-survey, all pupils

	Pre- ‘charity-active’	Pre- ‘non charity-active’	Pre-Odds ratio	Post-‘charity-active’	Post-‘non charity-active’	Post-Odds ratio
Treatment	1704	2243	0.91	1562	2445	1.02
Control	1616	1939	-	1380	2206	-

Table A10 – Change in professional aspiration odds ratio from pre- to post-survey, ‘volunteers’

	Pre-‘professional’	Pre- ‘non-professional’	Pre-Odds ratio	Post-‘professional’	Post-‘non-professional’	Post-Odds ratio
Treatment	1014	695	0.87	994	727	1.04
Control	1007	600	-	927	706	-

Note: this table compares those listing a professional occupation with all others

Table A11 – Change in social responsibility odds ratio from pre- to post-survey, 'volunteers'

	Pre- 'responsible'	Pre- 'non-responsible'	Pre-Odds ratio	Post- 'responsible'	Post- 'non-responsible'	Post-Odds ratio
Treatment	1436	276	0.99	1459	265	1.02
Control	1360	260	-	1376	256	-

Table A12 – Change in generosity odds ratio from pre- to post-survey, 'volunteers'

	Pre- 'generous'	Pre- 'non-generous'	Pre-Odds ratio	Post- 'generous'	Post- 'non-generous'	Post-Odds ratio
Treatment	576	1142	0.94	473	1247	1.09
Control	571	1065	-	417	1200	-

Table A13 – Change in charitable activity odds ratio from pre- to post-survey, 'volunteers'

	Pre- 'charity-active'	Pre- 'non charity-active'	Pre-Odds ratio	Post- 'charity-active'	Post- 'non charity-active'	Post-Odds ratio
Treatment	916	790	1.09	833	896	1.14+
Control	900	733	-	737	904	

Appendix B: The survey instrument

Durham University

University of Leicester

How do you see your future?

School URN :

Name :

UPN :

(Please do not complete a survey form that has someone else's Name or UPN printed on it)

Please ask a teacher to fill in the grid below if your UPN is not printed above

UPN:

0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9

Instructions

- This is a **survey** to find out about your views on things that are important to young people.
- There are no right or wrong answers to the questions
- What you say here will not be told to your school or your family
- Please complete **all** questions
- Use only **pencil** to mark the answers. If you make a **mistake** use the rubber to **rub it out**
- Mark the boxes as shown

Like this:

NOT like this:

1

		Yes	No	Don't Know	Other (mark here & write below)
1.	In the last year, have you been part of any activities or groups like those listed below? DO NOT INCLUDE SPORTS OR SPORTS CLUBS.	☐	☐	☐	☐

- Brownies, Girl Guides, Cubs, Scouts, Rainbows or Beavers
- Children's University
- Sea Scouts/Sea Cadets, Army Cadet Force, Boys' Brigade
- St John's Ambulance, Police Cadets, Fire Cadets
- Or any other similar uniformed groups

Other similar activity, not one of the answers above (please write here):

		Yes	No	Don't Know	Other (mark here & write below)
2.	In the last year, have you been part of any charity or voluntary groups or done any such activities like those listed below? DO NOT INCLUDE SPORTS OR SPORTS CLUBS.	☐	☐	☐	☐

- Volunteered to help in a local group, club or place of worship
- Helped raise money for a charity (e.g. doing a sponsored walk)
- Done any activities that help other people

Other similar activity, not one of the answers above (please write here):

3. Some schools have offered these uniformed groups to their pupils: Scouts, St John's Ambulance, Fire Cadets and Sea Cadets.

		Yes	No	Don't Know
a)	If your school offered one of these uniformed groups, would you be interested in joining?	☐	☐	☐
b)	Were you selected to participate in any of these uniformed groups?	☐	☐	☐
c)	Did you volunteer to participate in these uniformed groups?	☐	☐	☐

4. Please read the story below and then draw a line in the box next to the statement that you agree with the most:

Jon notices that there is a lot of litter in the school playing fields. What is the best thing he could do?

	Draw a line through ONE box
• Ignore the mess and take his friends to play in an area that is cleaner.	☐
• Help to clean up the playing fields.	☐
• Complain to his friends that no one cares about the mess.	☐

2

5. Please read the story below and then draw a line in the box next to the statement that you agree with the most:

Jacinta has difficulty reading and finds it hard to keep up in class. The teacher has to spend a lot of time helping Jacinta. Sometimes the other children have to wait for the teacher to stop helping Jacinta before helping them.

Draw a line through ONE box

- Jacinta needs extra help so it is fair that the teacher should spend more time helping her, even if the other pupils have to wait. ☐
- Jacinta should work harder to keep up with the rest of the class. ☐
- Jacinta should be taught in a separate class. ☐

6. Please say how much you agree with the following statements from "not at all true" (0) to "completely true" (10). Draw a line through only ONE box on each line.

	Not at all true → Completely true										
	0	1	2	3	4	5	6	7	8	9	10
a. I am good at explaining my ideas to other people	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b. I like meeting new people	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c. I can work with someone who has different opinions	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d. I can do most things if I try	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e. Once I have started a task I like to finish it	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
f. I want to try and make my local area a better place	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
g. I like to be told exactly what to do	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
h. I am often afraid to try new things	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
i. I feel happy most days	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
j. I try to understand other people's problems	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
k. I know where to go for help with a problem	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

3

7. Which group contains jobs that are most like the one you would like to do in the future?

Draw a line through ONE box

- Hairdresser, postman/postwoman, factory worker, cleaner, caretaker, farm worker, waiter/waitress, security guard, fitness instructor. ☐
- Doctor, scientist, lawyer, vet, teacher, nurse, journalist, artist, businessman/businesswoman, musician, computer programmer/web designer ☐
- Police officer, firefighter, secretary, nursery school teacher, office worker, electrician, builder, childminder, car mechanic, clothes designer, sportsperson (e.g. footballer or other sports-related jobs) ☐
- I don't know what job I want ☐
- Other (please mark this box and write the job below) ☐

If there is a job that you really want to do that is not like any of these, please write it down below :

Thank you very much for completing this questionnaire. We value your help greatly.

If you have any further comments about these questions, this survey or Youth United then please write them below.

4

Appendix C: Syllabus

Appendix C1

Fire Cadets Syllabus

SCHOOL PROGRAMME
SUMMARY OF ACTIVIITES / TERM 1

Week 1	Collate forms, Staff Intro, Programme Brief, Code of Conduct, Discipline Procedure, Instructor contact details, Icebreaker, Ground Rules, Intro to FRS, Parade Process & Parade
Week 2	Visit to Local Fire Station
Week 3	Risk Assessments, Safety words of Command, Manual Handling, Issue PPE, Intro to Equipment
Week 4	Triangle of fire, Spread of Fire & Effects if Smoke Inhalation, Teambuilding, Introduction to Hose Running
Week 5	Hand signals, Roles within a drill, (Crew formation/Numbering) Cadet Handbook, Teambuilding, Standard Drill equipment (45mm hose, branch, hydrant, standpipe bar & key)
Week 6	Bedtime routine & Fire Escape Plans, HSC, Teambuilding, Hydrant
Week 7*	Bonfire & Fireworks Advice, Standard Drill theory, Drill by numbers, Induction handbook
Week 8	Cadet Quiz, Teambuilding, YH1 Drill (get a branch to work from a hydrant
Week 9	Issue Uniform, Issue Certificates (Min Pass out at local fire station)
Week 10	Fundraising
Week 11	Ops Drill, Teambuilding
Week 12	Ops Drill, Teambuilding
Week 13	Winter Safety, Ops Drills

NB. Lesson plans for Week 10 to Week 13 have not yet been issued by FSYTA

*Depending on the start date of the schools programme – Bonfire/Fireworks safety will be incorporated earlier than the planned Week 7

<table>
<tr><td>Course:
Fire Cadets: BTEC Award Level 2 Fire and Rescue Services in the Community (QCF)</td><td>Tutor:
Hayley Rudd
Kelly Reed
Mick Jones
Steve Armstrong
Jodie Wood
Mick Bolster
Dan Smith</td><td>Module/Subject:
Fire and Rescue Services in the Community

Unit 1 Role of the F&R Service. 30hrs</td></tr>
<tr><td>Course Objectives:
Provide the opportunity to learn about, engage with and experience the Fire and Rescue Service
Support young people to make a positive contribution to society
Enable young people to gain skills, knowledge and positive experiences in a fun, safe and secure environment
Support young people to develop life skills, increase confidence and raise self-esteem
Inspire young people to make positive life choices for their future.
Identify the role of the Fire and Rescue Service in the Community</td><td>Size of class:
20 max</td><td rowspan="2">Course Aims:
Prepare young people for roles and responsibilities
Promote knowledge, skills, understanding and attitudes that will enable them to preform effectively, competently and safely
Provide opportunities to assist and encourage continuous development
Foster spirit of adventure, develop skills and qualities
Increase awareness of Community Safety
Develop Health and Safety Awareness</td></tr>
<tr><td>Target Group:
13-14 Years</td><td>Duration of Lessons:
1.5/2 Hours</td></tr>
<tr><td>Entry Level:
BTEC Award Level 2 Fire Rescue Services within the Community</td><td>Differentiation:
VAKR</td><td>Length of Course:
37 Weeks</td></tr>
</table>

Depending on Station Activities, Community Engagement will be scheduled as and when during Term 1

SESSION	TOPIC	METHODS	RESOURCES	ASSESSMENT	COMMENTS
Week 1 15/09/2014	Responsibilities of a Fire Cadet, Parade on and off and Kit issued Ground Rules/Paperwork	Tutor led Group work/Discussion	Fire Kit Class Room Uniform Pens PowerPoint	Observation Formative Assessment	
Week 2	Roles and Responsibilities of the Fire and Rescue Service - Prevent Protect Respond	Tutor Led Discussion	PowerPoint Class Room Hand outs Asng 1 = 1,2,3	Formative Assessment Hand outs	
Week 3	Introduction to Squad Drills – Safety Words Introduction to Hose Drills	Tutor Led Practical	Fire Kit Drill Yard Hand out Asng 2 = 6 Appliance	Formative Assessment Observation	
Week 4	Team Building: Comms	Tutor Led intro Student Led activity	Fire Kit Stepping Stones Tyres Communication Game Ball	Formative Assessment Observation	
Week 5	Unit 1 Assignment 1	Student Led Presentation	White Board/Computer Hand Outs Asng 1 = 4,5 Folders Pens	Observation Summative Assessment	

Week 6 Ormesby School PD Day Fri. 24th Oct.	Extended Drills – Add and Replace	Tutor Led Practical	Appliance Drill Yard Fire Kit	Observation Formative Assessment	
Half Term					
Week 7 03/11/2014 Bonfire Night – Weds. 05/11	Intro to ASB Hoax Calls	Tutor Led Group Discussion	Class Room White Board/Pens Hand Out Asng 5 = 18 Computer/ USB	Observation Formative Assessment Q&A	
Week 8	Unit 1 Assignment 5	Tutor Led Presentation	Computer White Board/Pens Notes Asng 5 =19	Observation Summative Assessment	
Week 9	Recap Skills session Introduction to ladders	Tutor Led Practical	Appliance Fire Kit Drill Yard	Observation Formative Assessment	
Week 10	Hazard Risk Control Measures	Tutor Led Discussion	White Board Hand out Asng 2 = 7,8	Hand outs Observation	
Week 11	Recap Equipment – complete hand-outs Qualities of a Team Poster	Tutor Led Student Led Discussion	Class Room White Board/Pens Computer Hand Outs Asng 3 = 9,10,11,12	Observation Formative Assessment	Photo Record needs to be taken on Week 12
Week 12	Unit 1 Assignment 3	Student Led Practical	Appliance Fire Kit Camera	Observation Q&A Summative Assessment	

Week 13	Unit 1 Assignment 2	Student Led Presentation	White Board/Computer Folder Pens	Observation Summative Assessment	
Half Term					
Half Term					
Week 14 05/01/2015 Thornaby Academy PD Day Mon. 5th Jan.	Introduction to BA – PowerPoint	Tutor Led demonstration	Class Room Computer/USB Whiteboard/Pens	Observation Formative Assessment	
Week 15	Search & Rescue Fire House	Tutor Led Practical	Appliance Fire Kit BA Masks Blindfolds	Observation Formative Assessment	Smoke House to be booked at LDC
Week 16	Search & Rescue in school - Unit 1 Assignment 4 Part 1	Student Led Practical	Blindfolds Masks/Blanks Fire Kit Guide Lines Hand Out Asng 4 = 14,15 Camera	Observation Summative Assessment	Additional Staff Required Photo Record to be taken
Week 17	Recap ASB HFSV	Tutor Led Discussion	Class Room White Board Computer/ USB	Observation Q&A Formative Assessment	
Week 18	Gas Rig	Tutor Led Practical	LDC Drill Yard Fire Kit Appliance	Observation Q&A Formative Assessment	LDC Book Gas Rig
Week 19	Climbing Wall	Student Led Practical	Climbing Wall	Formative Assessment	
Half Term					

Week 20 23/02/2015	Assignment Catch up Unit 1 Assignment 4 Part 2	Tutor Led Introduction Student Led Practical	Appliance Fire Kit Drill Yard Hand Out Asng 4 = 16,17	Summative Assessment	
Week 21	Heart Start Part 1	Tutor Led	Little Anne PowerPoint Computer/USB Hand Outs – First Aid	Formative Assessment Discussion Q&A	
Week 22	Heart Start Part 2	Tutor Led	Little Anne PowerPoint Computer/USB Hand Outs – First Aid Scenarios	Summative Assessment Discussion Q&A	
Week 23	Tower Slip & Pitch - Haul Aloft	Tutor Led Practical	Drill Yard Appliance Fire Kit Tower	Formative Assessment Discussion	LDC to be Booked
Week 24	HP Visit	Tutor Led	HP Drill Yard Helmets	Q&A	Book HP
Half Term					
Half Term					
Week 25 13/04/2015	Fire Awareness	Tutor Led	Class Room PowerPoint/USB	Formative Assessment Q&A	
Week 26	LDC - Crib Fire Fire Extinguishers	Tutor Led	Drill Yard Smoke House Fire Kit Appliance	Summative Assessment Observation Q&A	Book LDC Smoke House
Week 27	Knots & Lines	Tutor Led Practical	Knots & Lines PowerPoint/UBS Computer	Summative Assessment Q&A Observation	

Week 28 Bank Holiday Mon. 4th May	Different Pumping appliances	Tutor Led	Class Room PowerPoint Computer/USB	Formative Assessment Observation	
Week 29	Pumping from Open Water/ Locker Drills	Tutor Led Practical	Drill Yard Appliance Fire Kit	Formative Assessment Observation Q&A	
Week 30	BA Entry Board	Tutor Led	Class Room PowerPoint Computer/USB Entry Control Board	Formative Assessment Observation Q&A	
Half Term					
Week 31 01/06/2015	Learn & Live	Tutor Led	Class Room Computer/USB	Formative Assessment Q&A	Request Andy Bright
Week 32	Foam Drill	Tutor Led Practical	Drill Yard/Appliance Fire Kit	Summative Assessment Observation	
Week 33	1-2-1	Tutor Led Discussion	Folders Pens	Q&A Formative Assessment	
Week 34 Thornaby Academy PD Day Mon. 22nd Jun.	Crawl	Student Led Practical	Smoke House Fire Kit	Observation	Book LDC Smoke House
Week 35	Pass Out Preparation	Student Led Presentation	Appliance Fire Kit Drill Yard	Observation	
Week 36	Create Presentation	Student Led	White Board/Pens Computer Camera	Observation	

Week 37	Create Presentation	Student Led	White Board/Pens Computer Camera	Observation	If available switch to operational week.
Schools end for Summer 20/07/2015					
Week 38	Pass Out	Tutor Led Introduction Student Led Practical and Presentation	LDC Gym Computer Appliance Fire Kit Drill Yard		Book LDC for Pass Out

Appendix C2

Sea Cadets Syllabus

Sea Cadets programme of activities

Week	Date	Recreational Activity (30-45 mins)	Sea Cadet Activity (45 mins)	Teambuilding/ leadership task
			Each week give 1 Royal Navy history	
1	3rd – 7th Nov	Balloon game RA01-RA13	General Sea Terms (SP01) If have time more general Sea Terms (SP26)	If time at end
2	10th – 14th Nov	Capture the flag RA01-RA13	Seamanship Intro to bends & Hitches(SP04) If more time – Bends & Hitches (SP27)	If time at end
3	17th – 21st Nov	5 a side football RA01-RA13	First Aid – recovery position (SP10)	If time at end
4	24th – 28th Nov	Dodgeball RA01-RA13	Basic Drill – (quick overview of reasons for drill SP05) & (SP06)	If time at end
5	1st – 5th Dec	Physical Achievement RA01-RA13	Bosuns calls (SP37) Communication – Semaphore – use mini Sea Cadet flags (no session plan)	If time at end
6	8th – 12th Dec	Human Chain Game RA01-RA13	First Aid – session 2 – bleeding & shock	If time at end
7	15th – 19th Dec	Change tag RA01-RA13	Bowling	If time at end
	22nd – 26th Dec	**CHRISTMAS BREAK**	**CHRISTMAS BREAK**	
	29th – 2nd Jan	**CHRISTMAS BREAK**	**CHRISTMAS BREAK**	
8	5th – 9th Jan	Human knot RA01-RA13	Seamanship – General Rigging (SP94)	If time at end

9	12th – 16th Jan	Drop touch tag RA01-RA13	First Aid – session 3	If time at end
10	19th – 23rd Jan	Pen the Sheep	Royal Marines Cadets tactics	If time at end
11	26th – 30th Jan	Balloon stampede RA01-RA13	First aid – session 4	If time at end
12	2nd – 6th Feb	Tunnel relay RA01-RA13	Customs and Traditions	If time at end
13	9th – 13th Feb	Crab race RA01-RA13	Leadership Tasks	If time at end
	16th – 20th Feb	**HALF TERM**	**HALF TERM**	
14	23rd – 27th Feb	Ribble Dibble RA01-RA13	Paracord Bracelets	
15	2nd – 6th Mar	Rowing Machines	Rowing Theory and rowing machines	If time at end
16	9th – 13th Mar	Recreational Activities – Physical Achievement RA01-RA13	PT test	If time at end
17	16th – 20th Mar	5 a side football RA01-RA13	Sailing theory	If time at end
18	23rd – 27th Mar	Practical Leadership task (SP57)	Seamanship	If time at end
19	30th – 3 Apr	Recreation activity they enjoyed RA01-RA13	Leadership Tasks	If time at end
	6th – 10th Apr	**EASTER BREAK**	**EASTER BREAK**	
	13th - 17th Apr	**EASTER BREAK**	**EASTER BREAK**	

Date	**Activity**
20th - 24th Apr	Boating Qualification
April 27th - May 1st	Boating Qualification
4th – 8th May	Boating Qualification
11th - 15th May	Boating Qualification
18th - 22nd May	Boating Qualification
25th – 29th May	**HALF TERM**
1st – 5th June	Boating Qualification
8th – 12th June	Boating Qualification
15th - 19th June	Boating Qualification
22nd - 26th June	Boating Qualification
June 29th - 3rd July	Boating Qualification
Mon 4th July	Monday session due to cancelled in May

After School Provision
September 2014 to July 2015

22nd – 26th Sept	Welcome/Introductions/team building activities/Sea Cadet background	
TASTER SESSIONS at boating station	School 1	
	Group 1	Group 2
29th – 3rd Oct	Sailing/canoe	Canoe/sailing
6th – 10th Oct	Paddlesport/kayak	Paddlesport/kayak
13th – 17th Oct	Rowing/canoe	Rowing/canoe
20th – 24th Oct	Corps knowledge	
27th – 31st Oct	**HALF TERM**	
3rd – 7th Nov	Seamanship part 1	

10th – 14th Nov	Drill part 1
17th – 21st Nov	Navigation
24th – 28th Nov	Communications part 1
1st – 5th Dec	First Aid
8th – 12th Dec	Meteorology
15th – 19th Dec	Recreational activity
22nd – 26th Dec	**CHRISTMAS BREAK**
29th – 2nd Jan	**CHRISTMAS BREAK**
5th – 9th Jan	Leadership and teamwork
12th – 16th Jan	Seamanship part 2
19th – 23rd Jan	Drill part 2
26th – 30th Jan	Communications part 2
2nd – 6th Feb	Camp skills
9th – 13th Feb	Recreational activity
16th – 20th Feb	**HALF TERM**
23rd – 27th Feb	Community activity (student volunteering week)
2nd – 6th Mar	Marine cadet activity eg stalking
9th – 13th Mar	Adventure training
16th – 20th Mar	Physical training
23rd – 27th Mar	Field craft
30th – 3 Apr	Recreational activity **(SCHOOLS NOT IN ON FRI 2ND APR)**
6th – 10th Apr	**EASTER BREAK**

TRAINING COURSES at boating station	School 1	
	Group 1	Group 2
13th - 17th Apr	**EASTER BREAK**	
20th - 24th Apr	BCU 1 Star	
April 27th - May 1st	BCU 1 Star	
4th – 8th May	BCU 1 Star	
11th - 15th May	BCU 1 Star	
18th - 22nd May	BCU 1 star	
25th – 29th May	**HALF TERM**	
1st – 5th June	RYA Stage 1	
8th – 12th June	RYA Stage 1	
15th - 19th June	RYA Stage 1	
22nd - 26th June	RYA Stage 1	
June 29th - 3rd July	RYA Stage 1	

Appendix C3

St John Ambulance syllabus

PRIMARY SURVEY AND RECOVERY POSITION

Questions 1 – 10
CPR

Questions 11 – 18
CHOKING

Questions 19 – 23
Primary Survey, Recovery Position, CPR and Choking Quiz

1. Who is the most important person in first aid?
2. What do D R S A B C stand for in the primary survey?
3. What three ways can a first aider achieve the 'R' of the primary survey?
4. How could you ensure a casualty's tongue is not covering the back of their mouth?
5. How long will you spend on the 'B' of the primary survey?
6. What part of your hand will you use for the 'C' of the primary survey?
7. What state is the casualty in for you to move them into the recovery position?
8. What is the order of the pictures for the recovery position?
9. What will you keep checking for after you have moved the casualty into the recovery position?
10. Although they may not be able to hear you what will you continue to do whilst giving first aid?
11. What state is the casualty in to deliver CPR?
12. What does CPR stand for?
13. What two actions make up CPR?
14. What is the routine for CPR for an adult?
15. What is the routine for CPR for a child, including technique and number of each part?
16. What is the routine for CPR for a child, including technique and number of each part?
17. How far down the chest do you press down?
18. Give three times that you would stop CPR?
19. What is the first step if you suspect your friend is choking?
20. If it is mild choking what can you suggest?
21. What would you do if an adult was choking?
22. What would you do if a baby was choking?
23. When would it be necessary to call an ambulance?

Primary Survey, Recovery Position, CPR and Choking Quiz Answers

1. Who is the most important person in first aid?
   You as the first aider

2. What do D R S A B C stand for in the primary survey?
   Danger, Response, Stop and Shout for Help, Airways, Breathing, Circulation/ Bleeding/ CPR
3. What three ways can a first aider achieve the 'R' of the primary survey?
   Talk, Command, Tap
4. How could you ensure a casualty's tongue is not covering the back of their mouth?
   Open the airway
5. How long will you spend on the 'B' of the primary survey?
   No more than 10 seconds
6. What part of your hand will you use for the 'C' of the primary survey?
   Back of your hand
7. What state is the casualty in for you to move them into the recovery position?
   Unconscious but breathing
8. What is the order of the pictures for the recovery position?
   D, E, A, B, F, C
9. What will you keep checking for after you have moved the casualty into the recovery position?
   That they are breathing
10. Although they may not be able to hear you what will you continue to do whilst giving first aid?
    Talk/communicate/reassure
11. What state is the casualty in to deliver CPR?
    Unconscious, not breathing
12. What does CPR stand for?
    Cardiopulmonary Resuscitation
13. What two actions make up CPR?
    Chest Compressions and Rescue Breaths
14. What is the routine for CPR for an adult?
    30 chest compressions to two rescue breaths
15. What is the routine for CPR for a child, including technique and number of each part?
    5 rescue breaths, 30 chest compressions, 2 rescue breaths, 30 chest compressions etc with one hand
16. What is the routine for CPR for a child, including technique and number of each part
    5rescue breaths, 30 chest compressions, 2 rescue breaths, 30 chest compressions etc with two fingers
17. How far down the chest do you press down?
    1/3
18. Give three times that you would stop CPR?
    The casualty starts breathing, the paramedics arrive and tell you you can switch with them, you become too tired.
19. What is the first step if you suspect your friend is choking?
    Ask them if they are choking

20. If it is mild choking what can you suggest
Coughing it out
21. What would you do if an adult was choking?
Ask if they are choking, up to 5 back blows followed by up to 5 abdominal thrusts checking to see if it has come out between each out.
22. What would you do if a baby was choking?
Supporting the head, put the baby on one knee (while you sit down) and up to 5 back blows then on the other knee up to 5 abdominal thrusts with two fingers, checking between each.
23. When would it be necessary to call an ambulance?
After you have done the cycle of 10 up to three times, if you have had to use abdominal thrusts or they fall unconscious.

A	B
C	D

E	F

Appendix C4

Duke of Edinburgh – The year ahead 2015

Bronze

Date & Time	Session and Venue
Monday 27th January 3.15 – 4.30	**1st** Meeting (Meet at PE)
Tuesday 4th February 11.50 – 12.35	**2nd** Meeting (Meet at PE) – Pupils to be put into groups
Thursday 27th February 3.15 – 4.30	IT session **1** (meet in library)
Monday 10th March 3.15 – 4.30	IT session **2** (meet in library)
Wednesday 19th March 3.15 – 4.30	**Practical session 1** – Map Reading & Compass bearings (meet in library)
Tuesday 1st April 3.15 – 4.30	**Practical session 2** – Camp Craft (Tents) (meet in library)
Thursday 1st May 11.50 – 12.35	IT session **3** (meet in library)
Tuesday 3rd May 3.15 – 5.00	**Practical session 3** - Expedition preparation (kit)
Wednesday 20th May 3.30-4.30	**Tents**
Wednesday 17th June 30th June 3.30-4.30	**Kit**
Wednesday 24th June 3.30-4.30	**Map and navigation**
Friday 26th June – Saturday 27th June	Practice Expedition
Friday 10th-11th July	Assessment Expedition
1st July 3.30-4.30	ICT post expedition feedback
Tuesday 15th July 3.15 – 4.30	IT Session **4** (meet in library)

Appendix D: Consent forms

Appendix D1

Sample of opt-out consent form

Prof Stephen Gorard

Lead Evaluator

Durham University

School of Education

Leazes Road

DH1 1TA

Dear Parent,

Your child's school is participating in the Youth United Foundation Social Action Trial which is being evaluated by Durham University. The project is funded by the Education Endowment Foundation (part of the Department for Education). The aim of the project is to help identify effective strategies that will raise the attainment of disadvantaged pupils. To do this, we will need to match the data collected from the project with the National Pupil Database. We will not use your child's name or the name of the school in any reporting arising from the research.

If you do not wish for us to use your child's data, you can opt out by signing below and return the form to your child's form teacher.

Your name: _____

Signature: _____ Date: _____

If you have any questions about this project, please do not hesitate to contact me at:

Email: s.a.c.gorard@durham.ac.uk

Appendix D2

Activity consent form

FIRE CADETS ACTIVITY CONSENT FORM

Parental/Carer Consent to Activities

Cadet Name		**Date of Birth**	
		Current Age	
Address			
		Postcode	

Young people attending the Fire Cadets scheme will be involved in a number of activities throughout the duration of the programme. Instructors will supervise these activities.

The general areas of activity is outlined below. Please study the information, and complete the last column confirming if you give your consent for the young person named above to partake in each activity.

Activity	Description	Consent (Yes/No)
Squad drills	Marching and understanding words of command	
Hose work	Running out hose and getting water to work on the ground floor and up to the 4th floor of a drill tower	
Ladder work	Climbing up and down ladder to first floor level only	
Using fire appliances	Getting on and off fire engines, removing and replacing equipment	
Basic first aid	Protection of self, recovery position and calling for help	
Road traffic accidents	Demonstration and assisted use of equipment that fire fighters use at road traffic accidents and understanding of risks of driving	
Hygiene – personal and food	Assisting in the preparation of food and washing up	
Travel	Travelling to and from other venues via a minibus	
Working on brigade premises	Moving on and around a fire station, understanding the risk	
Visitor Talks	Educational sessions delivered by guest speakers to cover topics such as substance misuse, healthy eating, sexual health, relationships and road safety	
Videos / Images	Videos/images of road traffic accidents and actual fires that some people may find disturbing.	

1

Appendix D3

Media consent form

FIRE CADETS MEDIA CONSENT FORM

(For still images, moving images and audio material for CHILDREN)

I/We _____ (delete as appropriate), the person with

parental responsibility of: _____ Age _____

give the **Fire and Rescue Service** permission to use any still and/or moving image being video footage, photographs and/or frames and/or audio footage depicting my child named above for any of the following uses:

- Fire Cadets campaigns incorporating video tapes, audio CDs, CD ROMs, DVD's and other similar communications and data storage media yet to be invented;
- Television advertisements, radio advertisements, magazine advertisements, leaflets, information packs, flyers, parenting advice publications, the Fire and Rescue Service website, the FSYTA website or any website run by the Fire and Rescue Service, including social networking as well as any other suitable publicity purposes;
- Other fundraising and promotional materials, educational materials, research materials, lecture outlines, materials required for teaching purposes, for reference in the Fire and Rescue Service or FSYTA video and photographic library.

Is there anything about the child's history, which you may think we should know about before a moving or still image is taken?

_____

_____

_____

_____

The above consents will apply throughout the world and for an indefinite period.

Signed: _____ Date: _____

Signed: _____ Date: _____

Address: _____

_____

_____

Postcode: _____ Tel: _____

Appendix E: Cadets collecting for charity

Appendix F: Fire cadets in practice

Appendix G: Sea Cadets in session

Appendix H: School assignments

School name	Organisation	Number of pupils
School 1	Fire	20
School 2	Fire	4
School 3	Fire	13
School 4	Fire	17
School 5	Fire	20
School 6	Fire	21
School 7	Fire	16
School 8	Fire	11
School 9	Fire	20
School 10	Fire	21
School 11	Fire	17
School 12	Fire	22
School 13	Scouts	Not offered
School 14	Scouts	Not offered
School 15	Scouts	Not offered
School 16	Scouts	Not offered
School 17	Scouts	Not offered
School 18	Scouts	9
School 19	Scouts	17
School 20	Scouts	23
School 21	Scouts	31
School 22	Sea cadets	19
School 23	Sea cadets	14
School 24	Sea cadets	16
School 25	Sea cadets	35
School 26	Sea cadets	10

School 27	Sea cadets	21
School 28	Sea cadets	4
School 29	SJA	39
School 30	SJA	70
School 31	SJA	65
School 32	SJA	18
School 33	SJA	18
School 34	SJA	14
School 35	SJA	8
School 36	SJA	Not offered
School 37	SJA	Not offered

Appendix I: Number of sessions delivered by school & uniformed youth group

(not all the schools are represented here because we did not receive data from all the units)

School	Organisation	Sessions
School 1	Fire	28
School 2	SJA	25
School 3	Scouts	17
School 4	Sea	19
School 5	Fire	26
School 6	Fire	29
School 7	Fire	31
School 8	Sea	20
School 9	SJA	29
School 10	Sea	21
School 11	SJA	18
School 12	Sea	20
School 13	Sea	30
School 14	Fire	30
School 15	Sea	30
School 16	Fire	30
School 17	Fire	32
School 18	Sea	29
School 19	Fire	30
School 20	Scouts	13
School 21	Scouts	17
School 22	Sea	30
School 23	Scouts	4
School 24	Fire	30

School 25	Fire	30
School 26	Sea	19
School 27	Fire	30
School 28	SJA	21
School 29	Scouts	5

Appendix J: Cost calculation

Scouts

Estimated cost per pupil per year is: £206

Item		Per year
Trainers' fees	£120 per adult over 3 years	Approx. £120 per unit for 3 trainers
Equipment/training kit	Start up grant of £3,500 for 3-5 years and then £500 year then on	£500 per year
Outdoor activities	£100 per pupil per year	£100 per pupil
Membership fees	£35 per pupil per year	£35 per pupil
Uniform for new members	£40 (one-off fee)	£40 per pupil

Sea Cadets

Costs of delivery for the Sea Cadets include the use of the Area boat stations, time and resources of paid staff and the running cost, equipment and facilities. The total was estimated to be £525 per pupil per year. Of course, this will be higher if the units were smaller.

St John Ambulance

Cost per pupil is £17.50 for 20 pupils

It is estimated that it would cost £350 a year to set up a SJA unit for 20 pupils in the school. This is based on running the activities outside lesson time, and so does not incur teacher costs. It is also assumed that the unit is run in the school and so no hiring of venues or extra facilities required. SJA is a voluntary organisation and their staff are volunteers. Presumably the cost is for First-Aid kits for pupils and demonstration props such as training mannequins.

Fire Cadets

Estimated cost per pupil per year is £800.54

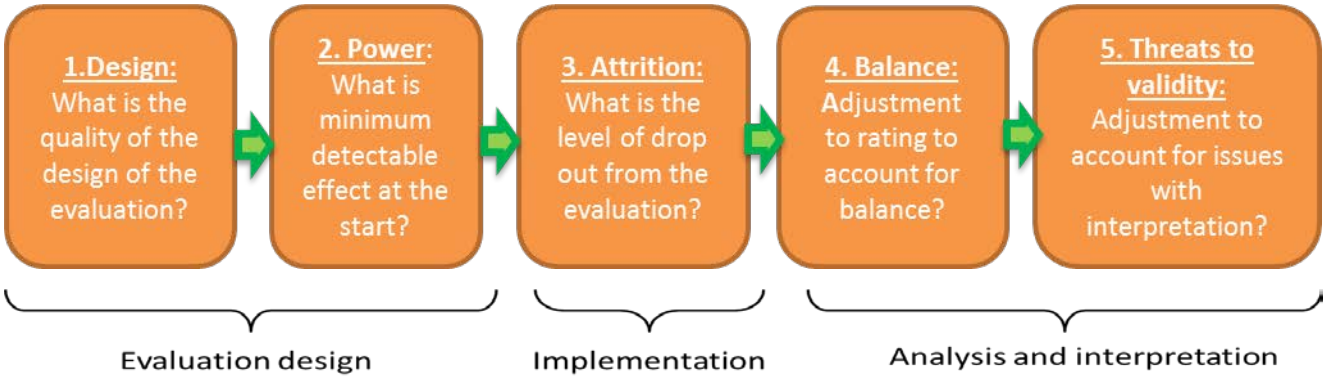
Based on average of 14 cadets and 2 staff members

CADET UNIFORM & PPE	**3369.1**

DAY TO DAY RESOURCES (photocopying, refreshments, bags to store fire kits, end of term buffet, passing out parade buffet, certificates, stationery, certificates, postage etc)	**1059.72**
EQUIPMENT RESOURCES (hose, foam branches handcontrol Akron branches, standpipe, inline inductor	**2658.14**
TRAINING (behaviour management, safeguarding, drill yard supervision)	**1266.25**
STAFFING COSTS (X2 Youth Advocates - based on 5hrs per cadet night (2hrs delivery, 1hr travel to/from cadet unit with resources / 1hr resources preparation / 1hr admin x36 school week year	**5256**
GRAND TOTAL	**13609.21**

Appendix K: Padlock rating

7th July 2016 Complete by Elena Rosa Brown



Attainment outcomes

Rating	1. Design	2. Power (MDES)	3. Attrition	4. Balance	5. Threats to validity
5 🔒	Fair and clear experimental design (RCT)	< 0.2	< 10%	Well-balanced on observables	No threats to validity
4 🔒	Fair and clear experimental design (RCT, RDD)	< 0.3	< 20%		
3 🔒	Well-matched comparison (quasi-experiment)	< 0.4	< 30%		
2 🔒	Matched comparison (quasi-experiment)	< 0.5	< 40%		Two threats to validity and one 'quality marker' issue.
1 🔒	Comparison group with poor or no matching	< 0.6	< 50%		
0 🔒	No comparator	> 0.6	> 50%	Imbalanced on observables	Significant threats

The final security rating for this trial is 2 🔒 for attainment outcomes.

Non-cognitive skills outcomes

Rating	1. Design	2. Power (MDES)	3. Attrition	4. Balance	5. Threats to validity
5 🔒	Fair and clear experimental design (RCT)	< 0.2	< 10%	Well-balanced on observables	No threats to validity
4 🔒	Fair and clear experimental design (RCT, RDD)	< 0.3	< 20%	↓	One 'quality marker' issue.
3 🔒	Well-matched comparison (quasi-experiment)	< 0.4	< 30%	↓	↓
2 🔒	Matched comparison (quasi-experiment)	< 0.5	< 40%	↓	↓
1 🔒	Comparison group with poor or no matching	< 0.6	< 50%	↓	↓
0 🔒	No comparator	> 0.6	> 50%	Imbalanced on observables	Significant threats

The final security rating for this trial is 4 🔒 for the non-cognitive skills outcomes.

Appendix L: Cost rating

Cost ratings are based on the approximate cost per pupil per year of implementing the intervention over three years. Cost ratings are awarded using the following criteria.

Cost	Description
£	*Very low:* less than £80 per pupil per year.
£ £	*Low:* up to about £200 per pupil per year.
£ £ £	*Moderate:* up to about £700 per pupil per year.
£ £ £ £	*High:* up to £1,200 per pupil per year.
£ £ £ £ £	*Very high:* over £1,200 per pupil per year.

This document is available for download at www.educationendowmentfoundation.org.uk

Education
Endowment
Foundation

The Education Endowment Foundation
9th Floor, Millbank Tower
21–24 Millbank
London
SW1P 4QP
www.educationendowmentfoundation.org.uk